DALGARNO. 1680.

19584/A

DIDASCALOCOPHUS
Or
The Deaf and Dumb mans Tutor,

To which is added

A Discourse of the Nature and number of Double Consonants: Both which Tracts being the first (for what the Author knows) that have been published upon either of the Subjects.

By *GEO. DALGARNO.*

Printed at the THEATER in OXFORD,
Anno Dom. 1680.

The Shepherd ... book ...
by Bales ... was ... signum
entitled Character ... naturæ
1661

Imprimatur,

TIMO. HALTON

Vice-Cancel *Oxon.*

Errata.

Read Didascalocophus for *Cheirology*, p. 96. l. 7. and p. 104. l. 22. Read use for *ase*, p. 27. l. 1. Read most for *least*. p. 128. l. 8.

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THE INTRODUCTION, With a KEY *to the following discourse.*

ABOUT 20 *years agoe, I published,* Latiali *but* rudi Minerva, *a Synopsis of a Philosophical Grammar and Lexicon; thereby shewing a way to remedy the difficulties and absurdities which all languages are clogg'd with ever since the confusion, or rather since the fall; by cutting off all Redundancy, rectifying all Anomoly, taking away all Ambiguity and Æquivocation, contracting the Primitives to a few number, and even those not to be of a meer arbitrary, but a rational Institution; enlarging the bounds of derivation and Composition, for the cause both of* Copia *and* Emphasis. *In a word, designing not only to remedie the confusion of Languages, by giving a much more easie medium of communication then any yet known; but also to cure even Philosophy it self of the disease of Sophisms, and*

Logo-

Logomachies; *as also to provide her with more wieldy and mannageable Instruments of operation, for defining, dividing, demonstrating,* &c.

What entertainment this design may meet with in following ages, I am not solicitous to know; but that it has met with so little in this present age, I could give several good reasons, which at present I forbear; intending, if God bless me with life, health, and leisure to do this in a more proper place. To me 'tis enough to have the Testimony of some of the learned men of this present age * *who are best able to judge in things of this nature, that I have there discovered a secret of Art, which by the learned men of former ages, has been reckoned among the Desiderata of Learning: To which I may add, that this discovery is made from more rational, easy, and practicable principles, than ever they imagined to be possible.*

* Dr. Seth Ward *now Lord Bishop of* Sarum, Dr. John Wilkins *late Lord Bishop of* Chester, Dr. John Wallis, Dr. William Dillingham.

To this treatise I gave the title of Ars Signorum, *which in compliance with the Dialect of the present Scene, I may properly enough change*

change to Sematology. This soon after became a fruitful Mother of two Sister-Germans, Didascalocophus, and a Discourse of double Consonants; which having lyen as twins in the womb for many years, at last two severe fits of sickness did midwive them into the world, the latter here in order being Senior to the other by the space of full 7 years.

That the argument I have in hand is worthy to be treated of, will readily be confessed by all; but how worthily I have handled it must be judged by a few, to whose candor (passing by all apologies) I freely submit. The former treatise of Sematology had the Universality of all mankind for its object, but had nothing to recommend it but conveniency; This of Didascalocophus, is restrained (at least in its most proper ends and principal effects) to a small number of mankind; but comes recommended with the strongest arguments of Charity and Necessity. But at present I will dismiss the Mother, and betake my self to put the Daughter in a proper dress for the following Scene of action.

The Soul of Man in this state of union depending

ding in its operations upon the bodily Organs; when these are vitiated it must needs follow, that the Soul it self is so far affected, as at least to be hindred in her external functions. Being therefore to treat of a way to cure a weakness that follows humane nature, equally affecting both: I will leave it to the skilful Physician, to discourse of the causes and cure of the Disease, as it concerns the Body, and will apply my self to consider of the means, to cure the better part of the Man, which is the proper work of a Grammarian.

And because the subject I have in hand is περὶ ἑρμηνείας, *and more particularly one branch of it, which for what I know, has been hitherto* ex professo *treated of by no Author: I will first mention all the several wayes of Interpretation, whereby the Soul either doth, or may exert her powers: In doing of which I will be obliged to take the liberty of coyning some new words of Art, which hereafter I will explain.*

It is true that all the Senses are Intelligencers to the Soul less or more; for tho they have their distinct limits, and proper Objects assigned them by nature; yet she is able to use their ser-

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vice even in the most abstracted Notions, and Arbitrary institution: But with this difference, that Nature seems to have fitted two, Hearing *and* Seeing, *more particularly for her service; And other two* Tasting *and* Smelling, *more gross and material, for her dull and heavy consort the Body: whereas the fifth of* Touching *is of a midle nature, and in a manner equally fitted for the service of both, as will appear in the progress of the following discourse. Wherefore being here to speak of the Interpretation of arbitrary Signs, impresst by the Rational Soule (and by it alone) upon the Objects of the Senses, most fitted for that use: I will take notice of the most usual, or at least of the most easy and practicable wayes of Interpretation which either are, or may be.*

Here reflecting upon Aristotles περὶ ἑρμηνείας, *and* περὶ ψυχῆς, *I expected both his help and Authority, in Analysing the several kinds of Interpretation: But finding little or nothing to this purpose in him, neither indeed in any other Author of old or new Philosophy (as wee now distinguish) that I have happened to look in, I was forced to adventure upon the following*

lowing Analysis, for clearing my way, and enabling me to discourse the more distinctly on the Subject Argument.

Interpretation then in its largest sense, is an act of cognitive power, expressing the inward motions, by outward and sensible Signs: *Of this there are three kindes, 1. Supernatural, 2. Natural, 3. Artificial or Institutional; to which I give the names of Chrematology, Physiology, and Sematology. Chrematology, is when Almighty God reveals his will by extraordinary means, as dreams, visions, apparitions &c. and this in the division of Arts falls under Divinity. Physiology is when the internal passions, are expressed by such external Signs, as have a natural connexion by way of cause and effect with the passion they discover; as laughing, weeping, frowning, &c. And this way of Interpretation being common to the Brute with Man, belongs to Natural Philosophy: And because this goes not far enough, to serve the Rational Soul, therefore Man has invented Sematology; that is, an Art of impressing the conceits of the mind upon sensible and material Objects, which have not the least shadow of affi-*

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nity to the images of the things they carry impreſt upon them: And this is Interpretation, in the ſtrickeſt and moſt proper ſenſe; and to reduce this wonderful effect of Reaſon to ſuch Rules of Art as the nature of it requires, is the proper Subject of Ars Signorum; *which according to the commonly recieved diſtribution of Arts, is nothing elſe but a Rational Grammar.*

Sematology then being a General name for all Interpretation by arbitrary Signs, or (to follow the moſt uſual terms of Art) voces ex inſtituto, *to any of the Senſes; It may from the three Senſes of Hearing, Seeing, and Touching, whoſe ſervice the Soul doth chiefly make uſe of in Interpretation, be divided into Pneumatology, Schematology, and Haptology.*

Pneumatology, (or if any think Echology more proper) is Interpretation by Sounds conveied thro the Ear; Schematology by Figures to the Eye; and Haptology by a mutual contact, skin to skin. Pneumatology again is divided into Gloſſology and Aulology: Gloſſology is a term proper enough for Interpretation by the Tongue, which is the firſt, and moſt common Organ of Interpretation, at leaſt in Society, and

face

face to face; for Man in these circumstances

---effert animi motus interprete Lingua.

Aulology so styled by an easy Trope, interprets by a Musical Instrument; which is fully capable of as much, and manifest distinction as the Tongue, but not so natural and ready an Organ.

Schematology is divided into Typology or Grammatology, and Cheirology or Dactylology. By Typology or Grammatology, I understand the impressing of permanent Figures upon solid and consisting matter, which may be done two wayes; either by the Pen and Hand, or by the impression of Stamps prepared for that use; which makes only an accidental difference between Grammatology and Typology. Cheirology or Dactylology, as the words import, is Interpretation by the transient motions of the Fingers; which of all other wayes of Interpretation comes neareſt to that of the Tongue. Haptology admitting of no Medium, nor distinction of Act and Object, but being body to body, doth therefore admitt of no subdivision. Tho I will not warrant all these Terms from Acyrology; yet I am sure that they will both save me the labour of Periphrasis, and also from using words less proper.

CHAP.

CHAP. I.

A Deaf man as capable of understanding and expressing a Language, as a Blind.

THO the Soul of man come into the world, *Tabula Rasa*; yet is it withal, *Tabula Cerata*; capable thro study and discipline, of having many fair, and goodly images, stampt upon it. This capacity is actuated, by the ministry of bodily Organs. The Organs of the Body, serving the Soul in exerting her powers, in this state of union are four; the Eye and the Ear; the Hand and the Tongue: the first pair fitted for taking in, the other for giving out; Both the one and the other, equally necessary for communication, and society.

That the Ear and the Tongue alone, secluding the other two, can perfect a man in knowledge (excepting of some few things which are the proper Objects of seeing) and enable him to express what he knows in Vocal Signs, or a Language

ſpoken, is known by daily experience in blind people. That an equal degree of knowledge is attainable by the Eye, and expreſſible by the Hand in Characters, or a Language written, is no leſs evident in the Theory, for the reaſons following.

All ſigns, both vocal, and written, are equally arbitrary and *ex inſtituto*. Neither is there any reaſon in Nature, why the mind ſhould more eaſily apprehend, the images of things impreſt upon Sounds, than upon Characters; when there is nothing either natural, or Symbolical, in the one or the other.

Therefore that blind people ſhould come ſooner to ſpeak, and underſtand, than Dumb perſons to write, and underſtand, is not, becauſe there is any more diſcerning faculty in the Ear, than in the Eye; nor from the Nature of Sounds and Characters, that the one ſhould have a greater fitneſs then the other to conveigh thoſe Notions impreſt upon them, thro the reſpective doors of the Senſes into the Soul; neither that pronounciation of articulate words is ſooner, or, more eaſily learned, then written Characters; neither

yet,

yet, that the Ear is quicker in perceiving its object then the Eye: But it is from other accidental causes, and circumstances, which give the Ear many considerable advantages, in the matter of Communication, above the Eye. And yet, even in this particular, the Eye wants not its own priviledges; which if rightly used, may perhaps outweigh the advantages on the other side. For illustrating this, I will compare a Deaf man with a Blind. 1. The blind man goes to School in his cradle; this so early care is not taken of the Deaf. 2. The blind man is still learning from all that are about him; For every body he converses with, is a Tutor, and every word he hears, is a lecture to him; by which he either learns what he knew not, or confirms what he had. The Deaf man not being capable of this way of discipline, has no teacher at all: and tho necessity may put him upon contriving, & using a few signs; yet those have no affinity to the Language by which they that are about him do converse amongst themselves, and therefore are of little use to him. 3. The Blind man goes thro the

discipline of Language in the best of his time, Childhood, and under the best of Teachers, women and children: The Deaf man is deprived of both these opportunities. 4. The blind man learns his Language by the by, and *aliud agens*; the Deaf cannot attain a language without instruction, and the expence of much time and pains. 5. The deaf man is confined to the circumstances of light, distance, posture of body, both in himself, and him he communicates with: the blind man is free from these streightning circumstances.

Lastly, all the advantages the Ear has above the eye, may be summed up in these two. First, more opportunities of time; secondly, quicker dispatch, or doing more work in less time: Both which may be in a great measure remedied by skill and care; by which if there were a timely application made to Deaf persons, I conceive they might be more improved in knowledge; and so their condition be much more happy than that of the blind: which will appear by the following advantages that the Deaf man has above the Blind.

First,

First, the Deaf man has greater advantages of acquiring Real knowledge, than the blind; because the Eye has greater variety of objects then the Ear. 2. The Deaf man has a greater certainty of that knowledge he attains by the Eye, than the Blind can have of that he receives by the Ear; for *Pluris est oculatus testis unus, quam auriti decem.* 3. As he has the better of the other in the knowledge of Nature; so also he exceeds him much, in Speaking and Reading the Language of Nature. For besides reading the Glory, and wisdom of God, in the book of the Creation; he is able also to read much of the minds of men, in the book of their Countenance; which, seconded with the postures, gestures, actions of the whole body; more particularly, the indications of the hands, feet, fingers, and other circumstances; laies open much of their inside to him: And he, by the same Dumb eloquence is able to notifie his desires to others. Of which way of communication, the blind mans condition renders him wholly uncapable. So that the one is able to prove himself a man, in any society

of Mankind, all the world over: The other, take him from the company of his country-men, has little elſe left him wherewith to difference himſelf from a brute, but the childiſh Rhetorick of *Democritus*, and *Heraclitus*. But fourthly, to come cloſer to our purpoſe with the compariſon. The Deaf man learns a Language by Art, and exerciſing his rational faculties; the Blind man learns by Rote; ſo that he gets a language and he himſelf knows not how. There is therefore as great difference in the point of language between a Deaf and a Blind man (ſuppoſing both to have made an equal progreſs,) as between one bred in the Univerſity, and a Clown that knows not a letter. Fifthly, tho the Blind man have the ſtart of the Deaf, yet the deaf man will be too hard for him at the long run: For he, after he has once got a competency of language, will be able to help himſelf, and direct his own courſe in the further purſuit of all Real knowledge. On the contrary, the blind man who in learning a language needed no particular Guide, becauſe every body was his Guide;

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now he is at a ſtand, and cannot ſo much as advance one ſtep, without one to lead him. Sixthly, the Deaf man has this great advantage above the Blind, which weighs heavier then all that can be laid in the Scales againſt it: That he is able to write down his notions, and reflect upon them as often as he will. And now the advantage of having much time for ſtudy, and doing much work in little time is as much the Deaf mans, as at firſt ſetting out it was the Blind mans. Seventhly, in the ſuperfetation of language the Deaf man will ſooner be impregnate with a 2^{d}, or 3^{d}, language then the Blind; inſomuch as one language learned by ſtudy and Art, is a greater ſtep to facilitate the learning of another, then the mother Tongue which comes by meer uſe and Rote.

CHAP.

CHAP. II.

A Deaf man capable of as Early Instruction in a language as a Blind.

TAking it for granted, That Deaf people are equal, in the faculties of apprehension, and memory, not only to the Blind; but even to those that have all their senses: and having formerly shewn; that these faculties can as easily receive, and retain, the Images of things, by the conveiance of Figures, thro the Eye, as of Sounds thro the Ear: It will follow, That the Deaf man is, not only, as capable; but also, as soon capable of Instruction in Letters, as the blind man. And if we compare them, as to their intrinsick powers, has the advantage of him too; insomuch as he has a more distinct and perfect perception, of external Objects, then the other. For the Blind man has no certain knowledge of things without him; but what he receives, from the information of the gross sense of Feeling; which,

tho it be a ſure intelligencer; yet is its intelligence very ſcanty: For what he receives by the Ear, is but a ſecond-hand knowledge, depending upon teſtimony, and the credit of others. So that the advantages I gave the blind man, at firſt ſetting out, are not in his own faculties, but from extrinſick and adventitious helps.

Therefore I conceive, there might be ſucceſful addreſſes made to a Dumb child, even in his cradle; when he begins --*riſu cognoſcere matrem*: if the Mother, or, Nurſe had but as nimble a hand, as commonly they have a Tongue. For inſtance, I doubt not but the words, *hand*, *foot*, *dog*, *cat*, *hat*, &c. written fair, and as often preſented to the Deaf childs Eye, pointing from the words to the Things and *vice verſa*; as the blind child hears them ſpoken, would be known, and remembred aſſoon by the one, as the other. And as I think the Eye to be as docile, as the Ear; ſo neither ſee I any reaſon, but the Hand might be made as tractable an Organ, as the Tongue; and aſſoon brought to form, if not fair, at leaſt legible Characters, as

the

the tongue to imitate, and Echo back, articulate Sounds.

Here it may be doubted; whether it were more adviſable, to train up the deaf child in Typology, or Dactylology. For the firſt, it may be ſaid, That tho the inſtitution is equally arbitrary in both, and therefore equally eaſy to the learner: yet, writing is permanent, and therefore gives the young Scholar time to contemplate, and ſo makes the deeper impreſſion: whereas, pointing to the fingers is tranſient, and gone before it can be apprehended. This made me at firſt incline more to writing: But upon further conſideration, I judge the other way much more expedient. For tho it cannot be denied, but the permanency of the Characters is in it ſelf an advantage, if well improved; yet, tranſient motions, if often repeated, make as great an impreſſion upon the memory, as fixt and immovable objects. A clear proof of this we have from young ones learning to underſtand a Language, from the Tranſient motions of the tongue: and which is yet more difficult; to imitate the ſame tranſient motions;

motions; where, neither can the distinctions be so manifest, nor the formation so easy, as in the Hand-language. Which, as it confirms me; That pointing to the Hand, would be the better way of teaching, so it makes me think: That if closely followed, it might be easier attained, by young ones, then speaking; insomuch as the motions of the Hand, are much more easy then those of the tongue.

If here it should be objected; That words written are more distinct, and easy to be apprehended; for tho consisting of several distinct letters; yet being joyned, they pass in this rude discipline, for one individual Sign, for our Scholar is supposed as yet, to understand nothing of the distinction of letters: whereas in pointing to the Fingers; The distinct motions to make up a word, will be more manifest; and so will be a hinderance to the Scholars weak intention, to apprehend that, which is represented by many touches so distinctly, under the Notion of one word.

To this I answer. If we compare the action of writing, with pointing to the Fingers, this is much more simple then

that;

that; and therefore leſs amuſing. But ſecondly, if we compare words written with pointing; this is ſtill not only more ſimple, and therefore more eaſily apprehended; But alſo it is as eaſy to repreſent a word as one *Compoſitum* with a continued action of the Hand, tho there be many diſtinct pointings, as to make One Word by an aggregate of many diſtinct letters. Add to this, that pointing to the Hand is capable of more Emphaſis; for frequent repetition accompanied with ſignificant geſtures, will come near to the way of teaching *viva voce*, which inculcates more then the beholding of a ſtanding object. But here there is need of caution; That we follow the conduct of Nature; That is, to begin with Words moſt ſimple and eaſy. For we ſee that young children when they begin to ſpeak are not able to pronounce long words, nor yet all letters. But here the only care to be taken is, to chuſe ſhort words; for all letters are equally eaſy. Now before I proceed I think it will be very proper to add ſome thing of the eaſineſs of the whole Task; both to remove prejudices in others,

thers, and more particularly to encourage the careful Mother the more cheerfully to undertake it.

There are many mothers who (to their great praise) do teach their children to Read, even almost before they can speak. And yet (I hope) it will appear from the following considerations; That to read and write upon the Fingers, is much easier to the learner, than to read and write in Books; there being many difficulties in the one, which are avoided in the other. For, 1. in reading, single letters must be learned; which are very remote, and abstracted from sense, as being but parts of a Signs Sign, e. g. H. is the 4th part of the word *Hand*, which word written is a sign of the vocal sound, the vocal sound is the immediate sign of the thing it self. 2. Next to this difficulty is the learning to name the same letters in the precise abstracted notion of them *a*, *b*, *c*, *d*, &c. without borrowing names to them from other things; contrary to what the first fathers of letters have taught us, as appears by their naming the simple elements *Aleph*, *Beth*, *Gimel*, *Daleth*, &c. And here by the by I cannot

cannot but obſerve; That we *Europeans* have been ſo dull Sholars, as not to take out the leſſon: Yea our wiſe Maſters the Grecians in this particular, are the greateſt Dunces of the reſt; For others have been truants and taken out no leſſon; and they have taken it out falſe. For they have named them by Barbarous and inſignificant words corrupted from the Hebrew; which is worſe then to name them by their own powers alone. Which hallucination of theirs has a remarkable providence in it; For thereby they have given a convincing proof, and openly confeſſed (tho they neither deſigned, nor owned any ſuch thing) that the Doctors of *Athens* have learned their a b c at the feet of *Gamaliel*. And here amongſt our ſelves and neighbouring Nations, it is obſervable, that in this point of diſcipline, our Dames are wiſer than our Doctors: for they find a neceſſity of bringing home theſe abſtracted notions to young ones ſenſes, by borrowing names from known and familiar things. But if there were one way of naming the ſimple Elements agreed upon, and this put in all Primers

and

and Horn-books, it would not only be of good use to children and unskilful Dames; but also the thing being celebrated would give occasion to ingenious allusions and Metaphors, an instance whereof we have in A and Ω in the Greek. But to return to our purpose. A third difficulty in reading is true pronounciation of the simple letters. And 4. joyning them in syllables is yet more difficult; the single letters often times either quite loosing, or, changing their powers. And 5. the dividing syllables aright, and joyning them to make words. All which are such difficulties that one may justly wonder how young ones come to get over them: And how late, and with how great pains they are overcome by some, I appeal to those that know what belongs to the breeding of youth. Now the Deaf child under his Mothers tuition, passes securely by all these Rocks and Quick-sands. The distinction of letters, their names, their powers, their order, the giving them true shape or figure (which answers to others pronouncing true,) the dividing words into Syllables, and of them again making

words,

words, to which may be added Tone, and Accent. None of these puzling niceties hinder his progress. All the teacher has to do, is, to go with one continued motion over all the points that make up the word, pointing withal to the things. And at first it will be convenient to initiate the young Scholar with words of few letters. and a near affinity; as, *Hat, Cat, Hog, Dog, Hand, Sand.* It is true, after he has past the discipline of the Nursery, and comes to learn Grammatically, then he must begin to learn to know letters written, by their figure, number, and order. But the rest of the difficulties I have but now mentioned, are proper to the Ear, and therefore do not concern him.

And because the advantages the Blind man hath over the Deaf, are more considerably such, in the time of childhood; It cannot be denied, but the blind child, is in a greater capacity of learning the Mother-Tongue then the Deaf: yet so, as skill and care might advance the Deaf child in a vocabulary of the names of visible Objects, much above what the other can be supposed to get from the common

use

uſe of the Mother-Tongue. For the one is ſtill running the ſame round, in a narrow circle, hearing the ſame words redundantly: the other might be in a conſtant progreſſive motion.

And tho I perſwade my ſelf, that ſome time or other, there may be a mother found, who by her own care, and ſuch directions as I am treating of, will lay a good foundation of Language in her Deaf child, even in the firſt ſtage of his Minority; yet ſeeing this is like to be but *rara avis*, I will advance our blind and deaf Scholars to a higher Form, and place them under a ſeverer diſcipline then that of the Nurſery; which I ſuppoſe none will deny them now able to bear: for I will ſuppoſe them entred in the 7th year of their age. Together then with this equality of age, let us ſuppoſe them every other way equal, in their natural parts, both faculties and inclinations, under Tutors equally both skilful and careful: And to make their capacities every way equal; the Deaf boy to write as fair and quick a hand, as can be expected from that age. In theſe circumſtances, they are

both of them to begin to learn a Language: the blind boy Latin, the deaf boy his Mothers Tongue.

The case being thus stated, It is my own opinion, that the Deaf boy would come to read & write the Mother-Tongue both much better and sooner then the blind boy to understand and speak the Latin. For reasons of my so thinking, beside what may be gathered from chap. 1. I will here carry on the comparison between the blind boy and the deaf in some particulars coming closer to our present case.

1. The Blind boy has the advantage of knowing a language already, which is a great help to the learning any second language. For tho there be no affinity between the words of some languages; yet there is something of a Natural and Universal Grammar runs thro all Languages, wherein all agree. This contradicts not what I have said to the deaf mans advantage Chap. 1. Num. 6. Because there the blind and deaf are supposed both to understand the Mother-Tongue when they begin to learn a second language.

guage. Here the deaf is supposed to have no language, and the blind to have the Mother-Tongue; which tho by him learned, not by Rule, but by Rote; yet is it an advantage over him that has none.

2. Beside this notion of Natural and Universal Grammar, which the blind boy hath got with the Mother-Tongue; he not being to learn Words for Things, but Words for Words; and it falling out so, that oftentimes there is a great affinity between the words to be learned, and the words for which they are to be learned; this makes that he learns with less pains then the deaf boy, who learning words for Things, it can never happen, that a combination of Alphabetical Characters making up a word, should have any affinity to, or resemblance of the thing for which it is substituted.

3 Onomatopœia is a great help to the blind Scholar, for Example, *grunnitus*, *hinnitus*, *rugitus*, *ululatus*, &c. are easier to be learned by the blind man, then the deaf; because as they pass in Sounds thro the Ear, they are of a mixt Institution, partly Natural, partly Arbitrary; But

these same words written in Characters are of a meer arbitrary Institution, whether they be considered with relation to the immediate, or mediate *Signatum*. So that our dumb Scholar has nothing to trust to, but diligence and strength of memory: Reason can do him no service at all, at least so far as either Primitive words, or words of an irregular inflexion from them extend; which make up the body of all languages. Neither can fancy help him much, which oftentimes is of great use by working a connexion between a strange and a known word, because as yet we suppose most words to be strangers to him.

The reason of this difference between words spoken and written is. Because speaking being before writing, has more of Nature and less of Art in it. For all languages guided by the instinct of Nature, have more or less of Onomatopœia in them, and I think our *English* as much as any: For beside the naming the voices of Animals, and some other Musical Sounds, which for the most part is done by this Figure in other languages, we extend

tend it often to more obſcure, and indiſtinct ſounds. Take for example, *waſh, daſh, plaſh, flaſh, claſh, haſh, laſh, ſlaſh, traſh, gaſh,* &c. So *grumble, tumble, crumble, jumble, fumble, ſtumble, bumble, mumble,* &c. of which kind of words, The Learned and my worthy friend Dr *Wallis* has given a good account in his *Engliſh* Grammar. In all theſe and ſuch like words there is ſomething Symbolizing, and Analogous to the notions of the things; which makes them both more Emphatic, and eaſy to the memory. But in words literally written, and of a meer arbitrary Inſtitution, there can be nothing Symbolical. But to draw ſomething out of this digreſſion to our preſent ſtated caſe. Tho Onomatopœia gives our blind Scholar ſome advantage over his Deaf Schoolfellow; yet is it ſhort of what it would be if he were learning *Engliſh*. This is all that at preſent comes into my thoughts to ſay for maintaining the Paradox of *a blind guide*. I will now offer my reaſons for giving him the precedency, that has two Eyes open in his head, which ſeems to be the more plauſible opinion.

1. The

1. The Deaf mans mind is like clean paper, and therefore takes the impression the more easily, fair and distinct: whereas the scriblings and blottings upon the Table of the Blind mans memory, as they leave little room for new impressions, so they breed confusion, and makes him ready to mistake, when he comes to read them.

2. Words laid up in the deaf Boyes memory, are like Characters engraven in Steel or Marble: The blind boyes words are but chalked out, or, *nigro carbone Notata*, and therefore easily defaced. For the deaf boy having but one word for every thing he knows, is therefore obliged to reflect upon it, as often as he has occasion to think, or speak of the thing it self: And it is this frequency of recognizing words, and using them upon all occasions that makes a man master of a Language: Whereas the blind boy having two words for one thing, the one an intimate and old acquaintance, even a *teneris unguiculis*, the other a stranger to him; upon all occasions he loves to converse with his old crony, and keeps at a distance from

the

the ſtranger; unleſs it be at ſet times, when force or fear commands his attendance. So that this conſideration alone (ſpecially if it be ſeconded with the care and diligence of thoſe that are about him, in forbearing all other Signs with him but letters) may ſeem to outweigh all that can be ſaid for the blind Boy.

3. The deaf boy can conn a leſſon by himſelf, for *litera ſcripta manet*; The Blind boy can do nothing without one prompting him for *vox perit.*

Laſtly, I think none will deny but that it ſtands with reaſon, That a deaf Scholar muſt be exact in Orthography. But for the blind I know it by experience, that it will be a hard matter to make him ſpel true.

CHAP.

CHAP. III.

Of a Deaf mans Capacity to ſpeak.

THAT a Deaf man may be taught to ſpeak, is no more a doubt to me, then that a Blind man may be taught to write: Both which I think not only poſſible, but alſo not very difficult; I will carry on the compariſon in ſeveral particulars. Firſt, both have the reſpective Organs, the Tongue, and the Hand, equally entire, and in a capacity to act. 2. Both are equally deſtitute of their proper guids, the Ey, and the Ear, to direct them in acting: and therefore, 3. both muſt be equally obliged to the ſenſe of of Feeling for direction.

And yet ſo Magiſterial are the Senſes of Hearing, and Seeing; that tho the Senſe of Feeling alone may guide the Tongue, and Hand, in ſpeaking, and writing, after ah abit is acquired; yet for introducing this habit, directions from the Eye, and Ear are neceſſary. And which is obſerv-

able

able in this point of discipline: The eye and ear seem to act out of their own Sphere, and to exchange their stations, and powers; for the Blind man learns to write by the Ear, and the Deaf man to speak by the Eye: From which to infer that community of Senses, which some Philosophers, and Physicians speak of, I think would be absurd; the external objects still remaining distinct: But the true inference from this will be. That the soul can exert her powers, by the ministry of any of the Senses. And therefore when she is deprived of her principal Secretaries, the eye, and the ear; then she must be contented with the service of her Lacqueys, and Scullions, the other Senses; which are no less true and faithful to their Mistress, then the eye, and the ear; but not so quick for dispatch.

But to go on with the comparison. 4. It will be hard to teach the deaf man to observe tone, accent, and Emphasis in speaking; so will it be as hard to bring the blind man to write a fair hand, or diverse hands, yet the one may speak so as to be understood, and the other write so as what he writes

writes may be read. 5. As there may be more ſimple, and therefore more eaſy Characters to be written, contrived for the uſe of the blind man; So may there ſounds of an eaſier pronounciation than any in common uſe, be invented for the uſe of the Deaf, 6. They are equally uncapable the one of ſinging, the other of flouriſhing and painting. 7. As the Deaf man has this advantage above the Blind, that ſpeaking in common commerce, and buſineſs is of more frequent and greater uſe than writing: So the Blind man comes even again with him in this. That there is one way of writing, and that of great uſe too, to the Deaf man; which the blind can learn both aſſoon and to as great a degree of perfection, as the deaf; whereas the deaf man cannot learn to ſpeak without much time, and pains; and yet can never come to perfection in ſpeaking. This way of writing is, by an Alphabet upon the fingers. 8. As to any direct tendency of improving either of them with knowledg, or diſpatch of buſineſs and converſe *in vita communi*, I judge them both equally uſeleſs, or at leaſt of

no

no very great nſe; becauſe I think ſcarce attainable to that degree of perfection, as to be ready for uſe upon all occaſions. That there may be caſes wherein they may be of great uſe I do not deny.

And of ſeveral that offer themſelves, I will ſingle out that of a blind Maſter, and deaf Servant, for ſtating of which the more clearly; I will premiſe. 1. That to read and write, is a commendation in a ſervant. 2. It recommends him the more, if he be to ſerve a blind Maſter. And 3. if his blind Maſter be a man of much buſineſs or learning, this enhanſes his ſervice yet the more. Theſe things premiſed; let our caſe be this.

Blind *Homer* hearing of an ingenious, but Deaf ſlave, called *Æſop*, who was trained up in all the forementioned waies of Sematology, and he himſelf being expert in Dactylology, he reſolved to purchaſe *Æſop* at any rate. The firſt ſervice he puts him upon, was to write out his *Ilias* fair, from his own blotted Copy: And becauſe *Æſop* could ſcarce read his hand, he was alwaies preſent himſelf, correcting the faults of his Pen, upon his fingers. And

here

here I leave them for a while till I have resolved another material doubt:

That which is my main design in this Treatise (to teach how to come to understand a language by reading and writing) suggests to me here to resolve this question. How a blind person might communicate with a dumb ? The cause of doubting being upon the dumb mans part. I answer. The defect of his Tongue must be supplied with a musical Instrument, having the letters equally distinguished upon the Keys, or Strings, both to the Eye of the Dumb, and in the sounds to the Ear of the Blind ; which I take for granted might produce the same effects with Oral speech. And here it is observable that that same action would very properly be, both Writing and Speaking ; writing from the hand of the dumb touching the Keys, or Strings ; speaking to the Ears of the Blind man from the sound of the Instrument.

After this short enterlude, let us bring *Homer* and *Æsop* upon the stage again. The old man was mightily pleased with *Æsop*, till unfortunately on a certain time,

time, the ſtuttering of his Tongue gave *Homer* occaſion to ſuſpect him of a ly: for which, in a ſudden paſſion, he cuts out his Tongue: But afterwards repenting what he had done, reſolved not to put him away; for he conſidered that he was yet as capable of ſerving him as ever; and perhaps more, the other waies of interpretation that he was skilled in, being more diſtinct than Gloſſology could be in a Deaf man. It happened ſoon after that *Homer* had invited ſome friends to dinner, commanding *Æſop* to provide the greateſt rarities the Market did afford. *Æſop* made a ſhow of great preparation; but ſet nothing upon the Table, beſide the tip of his own Tongue, in a large diſh; upbraiding his Maſter with his pipe, that he did not tear his blotted papers when he could not read them; but had patience till he himſelf corrected them upon his fingers. *Homer* not enduring this affront before ſtrangers throws *Æſops* pype in the fire. *Æſop* fearing worſe to follow, throws himſelf at his Maſters feet taking him by the hand, and by the rules of Haptology begs his pardon, promiſing if he would

would have patience, to make amends for his fault. *Homer* ſtartled at this, to find both a Tongue, and a Pype, in *Æſops* fingers; was tranſported from wrath to fear, and admiration, concluding for certain, That *Æſop* was a conjurer, and that he deſerved to be thrown in the fire after his pype. Yet reſolving once more to try his wit and honeſty: and for making ſatisfaction to his friends who had loſt their dinner, he invites them to return to morrow, charging *Æſop* to provide the oldeſt, and leaneſt carrion, he could find. The night following, *Æſop* ſerves his blind Maſter with *lex talionis* tongue for tongue, and repeated the ſame dinner to his friends the next day; excuſing the matter, that he had from firſt to laſt obeyed his Maſters commands, to the beſt of his judgment. *Homer* taking it ill, to be ſo often outwitted by a ſlave, by Dactylology begs of his provoked friends, to revenge him upon *Æſop*, by plucking out his Eyes; that his condition might not be more comfortable than his own. After this old age and a fit of ſickneſs deprived *Homer* of his Hearing. This reconciled him again to

Æſop;

Æsop; for he judged him the fitteſt companion he could find, with whom to bemoan his folly, and miſery. After this, they lived good friends, paſſing the time in telling old ſtories; ſome times upon their fingers ends, and ſometimes with hand in hand, traverſing the Alphabetical *Ilias*.

This *Drama* being acted according to the Rules of Art, if there be any certainty in Art, that the promiſed effects will follow, is no leſs true than it ſeems to be ſtrange. And from this we may learn two things. 1. That tho hearing and ſeeing be the Principal, yet are they not the only Senſes of Knowledg. 2. That the Hand is, (or at leaſt is capable of being made) a more ſerviceable organ of interpretation to the Soul than the tongue. For it has acceſs to its Miſtreſs's preſence, by the door of 3 Senſes. 1. Of hearing by Aulology. 2. Of ſeeing, by both Species of Schematology, to wit, Typology and Dactylology. 3. Of Feeling, by Haptology. Whereas the Tongue can only enter by the door of one Senſe, and do its meſſage only by one kind of interpretation, Gloſſology.

CHAP.

CHAP. IV.

Of a Deaf mans Capacity to underſtand the ſpeech of others.

I Come now to the Deaf mans capacity of underſtanding the ſpeech of others. That words might be gathered, and read from the tranſient motions, and configurations, of the mouth (if all the ſeveral diſtinctions of letters, were no leſs manifeſt and apparent to the Eye, than to the Ear from the ſpeakers face) as readily as from permanent Characters upon paper, is not to be doubted: But that all the diſtinctions that are perceived by the Ear in ſpeaking, cannot equally be perceived by the Eye; I will prove by an argument, which tho it be *à Poſteriori*; yet I hope it will be of evidence and force ſufficient, to effect what is thereby intended.

If the ſame diſtinctions of letters and words did appear to the Eye from the motion of the ſpeakers mouth, which are diſcernable to the Ear from the articulation of his voice;

Then

Then it would follow; That the capacity of a Deaf man, would be equal to that of a Dumb (but not Deaf) for learning a Language, ſo far at leaſt as to underſtand it.

But the capacity of a Deaf man is not equal to that of a Dumb, for learning a language from ſpeaking.

Therefore all the diſtinctions of letters, are not manifeſt to the Deaf, man from the ſpeakers mouth.

The ſequel of the Major is, I think, clear from what has been ſaid before; there being nothing in ſounds to the Ear either Natural, or Symbolical, more than in motion and figures to the Eye. And if any ſhould ſay; That it is not ſo eaſy to read tranſient motions of the lips, even ſuppoſing them ſufficiently diſtinct (which muſt alwaies be ſuppoſed) as permanent Characters. To this firſt, I oppoſe reading from poynting to a finger Alphabet; which is nothing but motion. 2. All reading from whatſoever immovable object, is as properly motion as hearing; for if there be no motion in the object, then it muſt be in the Organ of the Eye: which alters not our caſe, more than the Earths motion, or reſt,

alters the Phænomena of Astronomy.

If here it should be urged, that granting Signs to the Eye to be as fit for teaching, as signs to the Ear; and therefore, that a Deaf person must be supposed to be in as great a capacity of learning to understand a language spoken, as a blind, when the distinctions to the Eye and Ear are the same; yet, that the blind man learns to understand a language from hearing others speak, when the Deaf man learns not to understand from seeing others speak; is from the advantages the Ear hath above the Eye.

To this I answer, that all the advantages the Ear hath over the Eye, will be consistent enough with the Deaf mans capacity of learning to understand a language from speaking. It is true here, that the Eye is still at the loss of equal opportunities of time with the ear; but the other advantage I gave the ear over the eye, of doing more work in less time, is here quite taken away: and yet the Deaf man will still have as much opportunity of time (if there were no other defect) if his Nurse and all that are about him be

not

not *Dumb*; as sufficiently to inculcate the common Notions of Language: For tho young people learn a Language by hearing others speak; yet the greatest part of what they hear is redundant, and like rain falling into a full conduit, runs over. So that a deaf man tho he have not so much opportunity of learning as a blind; yet has he opportunities enough, and to spare, for learning the common notions of language.

Now for the *minor* so far as concerns the Deaf man, it is known by sad experience, that he learns no language from his Mother or Nurse. And for the Dumb person, tho I can bring no instance; yet the case seems to me so clear, that I think no body doubts of it, and therefore I will not enlarge to prove it.

But tho the Deaf man be not able to perceive all the distinctions of letters, neither indeed is it possible for him, the various motions by which some of them are differenced not appearing outwardly; yet if he be ingenious, I judge that he perceives a great many; and therefore I doubt not but Deaf persons understand

many things, even without teaching, further than what they have from their Nurſe. Tho here I muſt add: That they could underſtand but very little from the motion of the lips, which when moſt diſtinct muſt be full of ambiguity, and æquivocalneſs to them, without other circumſtances concurring. For when dumb people make it appear, that they underſtand many things that paſs in diſcourſe where they are preſent, Children and fools cannot be perſwaded but they Hear: Superſtitious and ignorant people think they have a familiar Spirit: others deſpiſing the folly of the one, and impiety of the other, do judge, that they are able by the Eye, as diſtinctly to receive words from the ſpeakers mouth, as others by the Ear. But the truth is, what they underſtand, is from a concurrence of circumſtances, many of which are often as material, as the motion of the ſpeakers lips; ſuch as, his eyes, countenance, time, place, perſons, &c.

To determine what, or how many diſtinctions of letters, the eye is able to diſcover in the ſpeakers face; There can be no man ſo fit to reſolve this doubt, as the

Deaf

Deaf man. And if there be no miſtake in that well known paſſage of Sir *Kenelm Digby*; A *Spaniſh* Deaf Lord hath already reſolved it ſo, as to refute and deſtroy all that I have ſaid. What is there ſaid of him, will amount to this. *That the Eye can perceive all the diſtinctions of letters, in the ſpeakers face, which the Ear can do in his voice.* I let paſs that which increaſeth the wonder: That this *Spaniſh* Lord ſhould be able not only to know ſtrange letters, in ſtrange languages, inſtantly; but alſo to be able to imitate them, tho he had never been taught.

To neglect the Teſtimony of a perſon both of Honor, and Learning, who was an ear and eye-witneſs of all he relates, and had nothing to byaſs him from what he judged to be exact truth; and which is more, calling to witneſs to that relation a perſon much greater than himſelf, and beyond all exception for veracity; This would not only be diſingenuous, but alſo arrogant. Therefore I will ſay what ſeems moſt probable to me for reconciling that relation to the truth. I will then firſt ſuppoſe, That Sir *Kenelm Digby* had not

much considered this weakness of human Nature, nor of the way to remedy it; and therefore might be the more credulous (for I find nothing of suspition or caution, that he might not be imposed upon) and ready (as we are all in strange things) to magnify this rare and wonderful Art, which, 'tis like, he had never seen nor heard of before; and perhaps had even judged such performances impossible. Secondly, I will suppose that the Priest the Lords Tutor was ambitious to set off his Art, with all the advantages possible, before so great a Personage as the Heir of the Crown of *England*.

These things being supposed, I take it for granted that the Priest has used artifices of *Leger-de-main*, in these passages that seem most strange. What these have been (supposing the matter of fact to be true) tho I was not there an eye-witness; yet, without conjuring, I can tell as certainly, as if I had been a spectator, or, an Actor in that Scene. 1. His keeping up discourse with others, has been done in set forms; to acting of which he has been trained up before hand. 2. For returning

any

any words that came from the mouth of another; this he has been prompted to by his Tutor, or any other ſtanding by, with a finger Alphabet. 3. As for his Echoing back *Iriſh* and *Welſh* words, two things may be ſaid. Firſt, that he might have been taught to ſound theſe guttural letters; which occur often in theſe languages, and were as eaſy to him as any other letters whatſoever: Or ſecondly, Becauſe it is there ſaid that the Prieſt affirmed, that he performed ſome things which were beyond the Rules of his Art; I know nothing can be ſaid, but that he might perhaps chance upon the true ſound of theſe letters, or ſomething near them; which the relator thought good to repreſent with all his other performances (becauſe indeed wonderful to thoſe that never had ſeen, or heard of the like, or knew by what art they were performed) to the greateſt advantage. As for his returning words whiſpered at the diſtance of the breadth of a large room, there is no new wonder in this; for whiſpering and ſpeaking loud were all one to him: But I ſuſpect that this as well as other things, has been

been a ſet leſſon, or, the Prieſt did *micare digitis*.

I am not ignorant that many of Sir *Kenelms* relations, are looked upon, as fabulous and Hyperbolical. Well, be it ſo, and let this be as fabulous as any of them. It is not the *eſſe*, but the *poſſe* of the ſtory, that I concern my ſelf to maintain. That ſeveral paſſages related there, are impoſſible, and other circumſtances very hyperbolical; in that ſenſe, in which he underſtands them, I think, I have ſufficiently proved: And yet, that the whole relation might be true, in that ſenſe I have put upon it, I hope I have made no leſs evident.

CHAP.

CHAP. V.

Of the moſt effectual way to fill a Deaf mans capacity.

HItherto I have been taking meaſures of the Deaf mans capacity. I come now to conſider of the way to fill it. And here my deſign is not to give a Methodical Syſteme of Grammatical Rules; But only ſuch general directions whereby an induſtrious Tutor may bring his deaf Pupil to the vulgar uſe and ἔτι of a language; That ſo he may be the more capable of receiving inſtruction in the διότι from the Rules of Grammar, when his judgment is ripe for that ſtudy. Or more plainly; I intend to bring the way of teaching a deaf man to Read and Write, as near as poſſible, to that of teaching young ones to ſpeak and underſtand their Mother-tongue.

I will begin with a Secret, containing the whole Myſtery of the Art of inſtructing deaf perſons. That is, I will deſcribe

ſcribe ſuch a powerful Engine, as may be able to fill his head as full of the Imagery of the world of words of mans making, as it is of the things of this viſible world created by Almighty God: which Engine ſhall have one property more, that it ſhall not fail of ſucceſs, even ſuppoſing both Maſter and Scholar to be the next degree to Dunces.

Here methinks, I ſee the Reader ſmiling at this *Fortunam Priami*; and hear him whiſpering to himſelf, *Parturiunt Montes*, &c. But I hope before I have done with my Notion, to reconcile him ſo far to it, as to bring him to judge that there is ſomething conſiderable in it: And tho at firſt he meet not with all that this *hiatus* may ſeem to have promiſed; yet at laſt he may meet with ſomething more than he expected. This powerful and ſucceſful Engine, is not the Tongue of the Learned, but the Hand of the DILIGENT. The Hand of a *diligent* Tutor will not fail to make a *Rich* Scholar, if *Copia verborum* may deſerve the name of *Riches*. *Diligence* will be that ſame virtue in our Deaf ſcholars Tutor, that *Demoſthenes*

Sthenes makes *Action* to be in his Eloquent Orator. Let the deaf child then have for his Nurſes, not the 9 Muſes, but the 9 Magpyes: Let him be ſent to School, not to πολύμητις Ὀδυσσεύς, but to ἀμεσοεπὴς Θερσίτης.

Diligence you will ſay is powerful in all Arts. True it is; yet as a Handmaid: But here I think, that without a *Catachreſis*, I may call it the principal point of Art. This with very few directions from Art, will do the work effectually; all the fine Tricks of Art, which the wit of man can contrive, will be ineffectual without this. The only point of art here is, how to make an application to your deaf Scholar, by the ſame diſtinction of letters and words to his Eye, which appear to the Ears of others from words ſpoken; That is to know his letters, and to write them readily; Diligence will do the reſt. For Example: Let the ſame words be ſeen, and written as often by the Deaf man, as they have been heard and ſpoken by the Blind; if their faculties of memory and underſtanding be equal, the meaſure of knowledge alſo will be equal. But here it will be neceſſary that I explain what I mean by Diligence. By

By Diligence I understand two things. 1. That which is properly so called, both in the Master and Scholar. This Sir *Kenelm Digby* calls much patience, and constancy in the experiment upon the *Spanish* Lord. 2. Many other adventitious helps. I summed up the advantages the Ear hath above the Eye into these two. 1. Having more opportunities of time; 2. Doing more work in less time. Here I will shew how Diligence, with a few directions from Art, may in a good measure remedy this inequality.

It is a received Maxim amongst those who have employed their thoughts, in that successless enquiry, about a perpetual motion. *Reconcile time and strength, and this will produce a perpetual motion.* The application is easy from what I have said before, comparing the Deaf man with the Blind. Let them have equal time, and force of acting, and their proficiency will be equal. That care and diligence both in the general, and the particulars following, may remedy this inequality, in a great measure, I think no body will doubt. Neither ought this to be

be any discouragement, that the reconciling time and strength, as to a Geometrical equality, is not possible: For it is not here, as in the perpetual motion. There, if you fail of a minute, or a Dram, all your labour is lost: Here nothing is lost, but just so much as you come short of him you compare with. How much this is, we will see by the particulars following.

1. If the deaf Scholar could be brought to speak readily, this would lessen the inequality of *Force*, by one half: and if it were possible, that he could read the Speakers words from his face, this would make a Geometrical equality of force, in the Eye and Ear; so that the only inequality would be then, in time; the eye being confined to light, bodily posture, and distance; and out of these circumstances, the deaf and dumb man were perfectly cured. But because I am distrustful of this cure for which I have given my reasons chap. 4. I will confine my self to reading, and writing, most properly so called, as both the more certain and perfect cure.

Here the first piece of diligence must be,

be, *frequens excercitatio Styli*, that is, as I understand it in this place, *using the pen and fingers much*. If this be so necessary for forming an Orator, (as *Cicero* teaches us in his *de Oratore*, inculcating it with *ut sæpe jam dixi*) who has the use of the two principal Organs of Eloquence entire; how much more must it here be necessary, where the Pen must be both pen, and tongue. Great care therefore must be taken, to keep your Scholar close to the practice of writing; for until he can not only write, but also have got a quick hand, you must not think to make any considerable progress with him. It is true, that it were possible to teach a deaf man to read, without teaching him to write; as one may learn to understand a language spoken and not to speak it: But this would be but a half cure, and leave your Scholar uncapable of Society.

And because the conveniency of writing cannot alwaies be in a readiness, another great help will be, to have *Tabulæ deletiles*, of stone or black wood, hanging up for expedition, in several convenient places. A third help will be, to have some common

common forms written in those Tables, there to continue; and to be filled up as occasion requires, like Virgils. *Sic vos non vobis*, &c, such as, *where is? I pray give me? who? when? what?* &c. These may serve not only for expedition, but by them also, your Scholar may be taught to vary. Pocket Table books may sometimes be more ready then these. 4ly when neither of these is in a readiness, then practice by an Alphabet upon the fingers; which by frequent practice, as it is the readiest, so it may become the quickest way of intercourse and communication with dumb persons. But I shall have occasion to enlarge more on this, chap. 8. 5ly. another piece of useful care will be, to keep him from any other way of Signing, than by Letters. 6ly, Add to this; that his familiars about him be officious in nothing, but by the intercourse of letters, that is, either by Grammatology, or Dactylology.

If now lastly, I can make it appear that Diligence out-weighs wit in our prsent case; I hope my former Flash will not be thought to have ended in smoke. And this,

this, methinks, is easily understood from obvious and daily instances: Do not we see that young ones, tho of very weak parts for understanding Grammar, yet come assoon, and some of them sooner, to understand and speak a language by use, without art, than those of stronger parts. One Boy has gone to School 7 years, and yet understands not the common accidents of Grammar; another in the half of that time, is able to expound an Author, and resolve all the Grammatications that occur to a Title: take the same two at play, or in things where there is no occasion to shew their learning, you will often find, that the slow boy, for the nimbleness of his Tongue, and *Copia verborum*, may seem to exceed the other, as far as he doth him in art.

Hence it will seem to follow; That the principal point of Art in teaching a slow Scholar, is, to use no other art but that of Diligence: and if so, a second inference will be: That there is none so fit to teach a slow Scholar, as a slow Master; That is, one Dunce to teach another. This I know will seem ridiculous and absurd to many;

many; yet I declare, that I am much of this mind in earneſt, in our preſent caſe, where Grammar is excluded. For an acute man will be impatient, and not able to ſtoop ſo much as the other. And to clear this further; I think it will be eaſily aſſented to, that a pratling Nurſe, is a better Tutrix to her foſter-child, than the moſt profoundly learned Doctor in the Univerſity.

My laſt inſtance therefore ſhall be. Take Maſter and Scholar qualified as before, adding *Diligence*, as I have deſcribed it, and let a liberal reward be propoſed to the Maſter; if the work be not effectually done, let me be the Dunce for them both.

If therefore this cure may ſo eaſily be performed; what a reproach is it to mankind, that ſo little compaſſion is ſhewn to this infirmity of human nature; theſe wretched impotents being not only neglected in the point of education, like brutes; but alſo, as if this were not unkindneſs enough, the laws of men do moſt inhumanly deprive them of many priviledges wherein the comfort of life conſiſts.

ſiſts. As for former ages, I confeſs they are to be excuſed: For tho (as I have been proving) *Diligence* be the principal point of Art; yet was this a ſecret to them: But in this knowing age, in which proofs have been given both at home and abroad, that this weakneſs is cureable in a good meaſure; and if the reaſons contained in theſe papers have any weight, curable even to perfection; ſo far at leaſt as concerns the better part of the man. That is, theſe impotents may not only be inſtructed in the common Notions of Language, which is the bond of human Society; but alſo from this foundation may be raiſed the ſuperſtructure of all other arts, which are either for uſe or ornament to human Nature. I ſay then; for us to neglect ſo worthy and noble an experiment, and ſo great an object of charity and compaſſion; were at once to degenerate from the charity of our Anceſtors, and to make their ignorance preferable to our knowledge.

CHAP.

CHAP. VI.

Of a Deaf Mans Dictionary.

THO a Diligent inculcating of the common Forms of a Language, following no other Rule or Method but that of the Nurſery, would undoubtedly bring the Deaf man to underſtand, and write it, ſo as the Vulgar underſtand and ſpeak it. Yet ſome directions from Art (ſpecially if your Scholar be ingenious) will both facilitate the work, and do it much better. That is, it will make him underſtand the nature of words better, and ſo prepare him for the ſtudy of Grammar; as alſo the nature of things, for which he ſees words ſubſtituted, and ſo prepare him for the purſuit of other Arts. I will therefore give a few ſuch directions, whereby the Teacher abſtaining from Rules and words of Art, may be enabled to produce the proper effects of Art in his Scholar. But firſt I will reſolve two preliminary Queries. 1. What language

is easiest to be learned? 2. And what language will be the most useful?

For the first, a language of a Philosophical Institution, or a real Character, would be by much the most easy; as being free from all anomoly æquivocalness, redundancy and unnecessary Grammatications: and the whole institution being suited to the nature of things; this verbal knowledge, would not only come more easily; but also bring with it, much real knowledge.

2dly, The language of greatest use to be learned, will be that of the place where he lives, and of the people with whom he is to converse. And here with us, the Deaf man has several advantages above other Nations. First, that our *English* is freer from anomoly, and æquivocalness (at least in writing, which is enough for him) than many other languages. 2. It is not so much clogged with inflexions, as other languages, and 3. our words are for the most part Monosyllables, and therefore more easy to be remembred. I come now to the promised directions.

I will

I will make way for particulars, by observing first in General; that the way of teaching here, must be something mixt, and as it were middle between the Grammatical way of the School, and the more rude discipline of the Nursery. The first initiation must be purely grammatical; But when your Scholar is got over this difficulty of knowing and writing his letters readily; Then imitate the way of the Nursery. Let *utile* and *jucundum*, variety and necessity, invite and spur him on; specially if he be young or of a lache temper.

You must not be too Grammatical in teaching, till you find his capacity will bear it: He must not be dealt with as School-boyes, who are often punished for not learning what is above their capacity. It is enough for him to understand the word, or sentence proposed, without parsing every word and syllable: For this is all the use of language that not only children, but even people of age that are illiterate have: They understand the meaning of what is spoken; but can neither tell how many words, syllables, or

letters came from the ſpeakers mouth. So that the having the vulgar uſe of a language and the underſtanding it Grammatically, are very different things. And this prepoſterous way of learning the learned languages, firſt Grammar, & then the language, is the cauſe of ſo ſlow progreſs in thoſe that apply themſelves to the ſtudy of them.

The firſt exerciſe you muſt put your Scholar upon, is to know his letters written, or printed, and upon his fingers, and to write them himſelf; and when he comes to joyn, let his copies be of ſuch words as he may be taught to underſtand; ſo that at once, he may be learning both to write and underſtand the meaning of what he writes. When you have got him to write fair, keep him to conſtant practice, that you may bring him to write a quick hand; which his condition requires.

Let him begin to learn the Names of Things beſt known to him, how Heterogeneous ſoever; ſuch as the Elements, Minerals, Plants, Animals, Parts, Utenſils, Garments, Meats, &c. and generally the names

names of all such corporeal Substances, Natural or Artificial; not only absolute, but Relative, as *Father*, *Brother*, *Master*, *Servant*; as also names of offices, and professions, as *Cook*, *Butler*, *Page*, *Groom*, *Taylor*, *Barber*, &c. For all these will be as easily apprehended as the most distinct *Species* of natural Bodies. Let his *Nomenclature* be written down fair, and carefully preserved; not only in a book, but on one side of a sheet of Paper, that it may be affixt over against his eye in convenient places. And let this his Dictionary be sorted three waies. 1. Alphabetically, 2. following the order of double Consonants, both in the beginning and the end of a word. 3. Reducing it to several heads, or *Classes*, with respect not to the words, but the things, as in *Junius Nomenclator*, for every one of these Methods will be of good use to him.

After he has got a good stock of these concrete Substantives, then proceed to Adjectives; namly, Sensible Qualities, Quantity, with some Metaphysical Notions; which all of them almost admit of proper contraries; which illustrate one another,

other, and therefore will be of great use to the learner. Let him be made to understand Adjectives by joyning them to their proper subjects, taken out of his vocabulary of Substantives already understood; as *Hard Iron, Stone, Bone,* &c. *Soft Silk, Wool, Cloth,* &c.. And sometimes instance the two contraries, in that same Subject; as *Iron hot, cold:* And thus he will make a further advance to complex Notions.

Observe here. That by the help of an Almanack and Watch, it will be easy to make your Scholar understand all the differences and words of that difficult Notion of *Time.*

After he has practised sufficiently upon complex notions of Substantives, and Adjectives; let him proceed to words of Action, whether bodily or Spiritual, which Grammarians call Verbs, as, *break, cut, hold, take, laugh, affirm, deny, desire, love, hate,* &c. And thus much shall be enough to have been said of his Dictionary, in this rude discipline under which we suppose him as yet to be.

Here I would have it well observed: That tho in applying my self to the deaf

mans

mans Tutor, I have followed something of Method, *docendi causa*; yet I do not advise him, to take this course with his Scholar: But as I said before, That the names of things best known to him, how heterogeneous soever, were to be first learned: So here I say, that there is no regard to be had to the cognation, or Grammatical affinity of words. In a word, occasion will be the best Mistress of Method, till he have made a considerable advance; And then when his Dictionary begins to be numerous, it will be necessary to draw it up in rank and file. Nay further, I am so far from advising to follow any method at first, but what is occasional (excepting only the stated, and fixt order of letters in the Alphabet) that if your Scholar be not very young, you may propose sentences as early to him as single words; especially interrogatives and imperatives, as, *where is your hat? whose hat is this? who gave you this apple? Rise up, sit down, give me the cup, shut the door,* &c. And these may be easily varyed Indicatively, infinitively, affirmatively, negatively, &c.

And

And yet for all this, I cannot deny but the Teacher may, and must contrive some method for himself, even of those things which he has taught, following occasion and his Pupils capacity; that he may know the better to take the measures of his progress, and to make the best use of occasions offered.

CHAP.

CHAP. VII.

Of a Grammar for Deaf Persons.

HAving dispatcht the Deafmans Dictionary, I come in the next place to speak of his Grammar. I should contradict the principles I have formerly laid down, if I should insist much upon Grammar; neither indeed doth our *English* Tongue require or afford much to be said by him, who would be ambitious to shew himself γραμματικώτατον. I shall therefore only make some few reflexions upon Etymology and Syntax, supposing Orthography to belong to Lexicography, of which already: And for Prosody, our Scholar is no more able to receive its precepts, than a blind man is to judge of colors.

I shall only take notice of 5 Etymological Grammatications, and do but name them; for I judge that these and all other points of Grammar are to be differred, at least as to an accurate explaining

ing of them, until he be fitted for the ſtudy of Grammar, in manner as I have ſaid before.

The firſt is the plural number, for which the Rule is but one and eaſy. *Add s to the ſingular, pen, pens,* and the exceptions are not many, which here I paſs by. 2. The Comparative, and Superlative degree, almoſt as eaſy as the other. They are formed by adding the terminations *er* and *eſt*, or by the auxiliary words, *more, moſt,* as hard *harder hardeſt*, or *more* hard. *moſt* hard. The exceptions are not many. 3. The Participle Active or Neuter in *ing*, from which I think there is no exception: And the Participle paſſive, which is oftentimes the ſame with the preterimperfect Tenſe, without an Auxiliary word, as, I *loved*; or the preterperfect Tenſe, with an auxiliary word; as I have *loved*: But from this rule are a multitude of exceptions; which is the greateſt irregularity in the *Engliſh* Tongue. 4. The adverb of the manner ends in *ly*. This alſo hath its exceptions, but not many. 5. The abſtract ending in *neſs* generally.

Theſe things you need not teach your Scholar

Scholar by Rule, for a little practice will enable him to make a Rule for himself, and to bring the exceptions too under his Rule; as, we hear Outlandish men, and children saying often: *mans*, *womans foots*, for *men*, *women*, *feet*.

As for that ambiguity, that almost every concrete Substantive in English is used verbaly, as *pen*, *hand*, *foot*, &c. This adds much to the Copiousness, Emphasis and Elegancy of the language; and yet gives very little cause of mistake; the construction of the words determining the signification. But the Verbal signification of these words being Metonymical, it will be best to leave them to their own place. So much for Etymology shall serve in this place, now for Syntax.

The Learned languages make two general parts of Syntax, agreement and government; whereas it seems to me that with them, Syntax requires a distribution antecedent to this. To wit, that the Syntax of words is either *per se* or *per aliud*, i. e. The Grammatical coherence and connexion of words, is made by the Terminations of the words themselves, or,

by

by auxiliary words, called *Particles*. But neither the one nor the other of these distributions does our language require, or admit of, being freed from all incumbrances of inflexions, by genders, and cases (except a few pronouns) and consequently from the Rules of Agreement, and Government: All our Syntax consisting in the cement of auxiliary Particles.

To treat of Syntax then in English, is to shew the use of the *Particles*, in forming words into Sentences. For, to explain these Notions separately, were to build Castles in the Air; and to form sentences without them, were to make ropes of sand.

Here I will not insist upon explaining every single particle, as if I were dealing with a Dumb Scholar; But remembring that the present address is more to the Master then the Scholar; I will instance only in some few, which may serve for a Clew to guide any ingenious adventurer thro the whole Labarynth.

As I would advise the dumb Scholar to be often put to practice upon verbs of bodily action, varying the circumstances by

by the Particles; ſo will I ſingle out the verb *Cut*, to be the Principal verb in the following Examples, for explaining the Particles.

I begin with Pronouns, which according to the Notation of the word, are words put for other words. Let therefore theſe things be preſent, for whoſe names the pronouns are the *provocabula:* and then it will be eaſy to make your Scholar underſtand the uſe of theſe pronominal words. I will inſtance, firſt in the Demonſtratives, *I, thou, he, we, ye, they*. Let there be ſix perſons preſent, as many more as you will. Write down. *I cut, thou cut, he cut, we cut, ye cut, they cut*. Let the Maſter take his Scholar by him, and place a third perſon over againſt him, all of them prepared with a knife, and apple, or ſtick, &c. Let the Maſter Cut firſt, pointing to the words *I cut*, 2. let the Scholar cut, the Maſter pointing to the words *thou cut;* 3. let the third perſon cut, pointing to *he cut*. And for the Plural number: let the Maſter and his Scholar ſtand firſt together, placing two more near them, and two over againſt them. Then let the Maſter and

and Scholar cut, pointing to *we cut*; let the two by them cut, pointing to *ye cut*; 3. let the two over againſt them cut, pointing to *they cut*. The poſſeſſives, *mine, thine, his, ours, yours, theirs*, may be taught after the ſame manner; *my apple, thy apple, his apple, our apple, your apple, their apple, mutatis mutandis*. In ſhort, all pronominal words after the ſame manner, *all cut, none*, or *no body cut, this boy cut, that boy cut, the ſame boy cut, another boy cut, &c.* Let him practice much upon this and other Verbs till you find that he is able to make theſe diſtinctions of himſelf.

When he can diſtinguiſh perſons, it will be eaſy from many examples, *cutteſt, cutteth, breakeſt, breaketh, holdeſt, holdeth*, to make him underſtand, that the 2d and 3d perſon ſingular are diſtinguiſhed by termination from the other perſons.

For the Signs of Tenſes, *do, doſt, doth, have haſt hath, was waſt were, ſhall will*: write down, *I have cut the pen, I do cut the apple, I will cut the ſtick*: cut accordingly pointing to your Scholar; or, write, *I have ſtood, I do ſtand, I will ſtand*, do accordingly.

ingly. *I have walked, I do ſtand, I will ſit,* do accordingly. Do not trouble your Scholar with too nice diſtinctions of words, ſuch as *ſhall* and *will, did* and *have*; it is enough for him, as yet, that he underſtand the uſe of words in the common forms of ſpeech, as illiterate perſons do.

Let him practice much upon the Pronouns, and Signs of Tenſes, with Verbs of Action, adding other circumſtances of time, place, manner, &c. and that with all the variety poſſible, of familiar, plain, eaſy, moſt common, and moſt frequently occurring circumſtances.

The *copula* will be eaſily underſtood, becauſe of its frequent uſe, both affirmatively and negatively; *fire is hot, water is not hot; water is cold, fire is not cold;* So in all its inflexions; as, *I am tall, thou art ſhort, he is thick, I am ſitting, thou art ſtanding, he is walking.*

The Particles OR and, AND, with the adjectives *Same* and *diverſe*, are to be diligently inculcated, as being words of frequent uſe, and uſeful for explication, and declaring the ſenſe of other words. *Or* in the explicative ſenſe of it coming be-

tween words signifying the same thing; *And* between words signifying diverse things. It may be good to write down many examples of Synonymous words, and phrases which your Scholar understands, joyning them with, *or*, as

The same { I stand / or / I do stand / or / I am standing } { to go / or / to walk } the same { wide / or / broad } the same

So for the Copulative, AND, give such examples as these.

Diverse { Hand / *and* / Foot } diverse { Pen / *and* / Ink } diverse { Sun / *and* / Moon. }

But the frequent recurring of these and many such like in common, familiar, and necessary forms of speech, will soon make them to be nnderstood.

As for Particles signifying Motion, as *to, from, thro, by, into, out of, hither, thither, hence, thence,* &c. whether prepositions or adverbs: so Distance, as, *far off, near, at, hard by, close by,* &c. Position, as, *before, behind, above, upon, beneath, about, up, down, beyond, on this side,* &c. Their use and meaning is so plain and obvious, that there

there needs no more but choice of fit examples to make them understood. The Table is *before* your face; The Chair is *behind* your back; The book is *upon* the Table; My hand is *above* the Table; the nose is *between* the Eyes; the Eyes are *above* the mouth; the mouth is *under* the eyes; the tongue is *in* the mouth; to put *out* the tongue; to rise *up*; to sit *down*; go *to* the door, *from* the door, come *hither*, go *thither*, &c. These and such like words signifying circumstances perceivable by sense, are as easily apprehended, as words signifying bodily substance or sensible Quality.

Even the Particles of a Metaphysical extraction, and more remote from sense, may be easily understood, if the Teacher be not too Metaphysical in his application. I will mention here only two Topicks of this kind of Particles; The causes and the Comparates, which are the two principal sinews of discourse. The particles from the causes are diverse, *from*, *of*, *with*, *by*, *wherefore*, *therefore*, *because*, *why*, &c. Use examples such as these. This Pen was made *by* the Master, *of* a Goose-

quil, *for* to write *after* my Copy. Explain *why*, *wherefore*, *what is the cause*, by expostulations, and interrogations, with your Scholar himself or others, and *Because* in answer to these.

Observe here, that many of these Particles being very equivocal, it will not be prudence to represent this difficulty all at once, lest it amaze and discourage your Scholar. For example, you have made him understand the causal particle *with*, in such examples as these, to cut *with* a knife; to write *with* a Pen: do not immediatly put him upon the Particle of Society *with*, as, go *with* me; but explain the various use of such particles, as they offer themselves occasionally in practice, and as you find his capacity is able to receive: For, improving of occasions, and complying with the Scholars capacity, will be the Masters greatest commendation. Not but that he may be put upon learning many set forms for exercise of memory; tho he understand them not perfectly. But do not put his understanding to the rack, by an undiscreet pressing upon his apprehensive faculty, Notions either

either ſimple or complex, which you find he receives not readily. But make a collection of ſuch words, and watch opportunities of explaining them: I can give no better Rule for explaining words hard to be underſtood; then that which *Horace* has given, in a caſe not much unlike ours.

Dixeris Egregie notum ſi callida verbum
Reddiderit junctura novum. ---

Where the principal Verb of a ſentence is clearly apprehended, it brings great light to other circumſtantiating words. So that the skilful chuſing of verbs of Action, well underſtood by your Scholar; and the like dexterity in placing a hard word, which you would have him to underſtand, amongſt other words of circumſtance already well underſtood, in conſtruction with the verb; every word of the ſentence will reflect ſome light upon this dark word.

The ſecond claſſis of Metaph: (or perhaps more properly Logical) particles, are thoſe that owe their Origine to the Topick of the Comparates; ſuch as, *than, much, more, moſt, leſs, leaſt, by ſo much,*

much, &c. explain these also by many fit examples, in which the several degrees of comparrison may be demonstrated to the senses. This water is *as* hot *as* that; This cheese, apple, egg, is *greater* or *more* great *than* that; This apple is the *greatest*, or *most great* of all the apples; *by how much* this stick, paper is *longer than* that, *by so much* that is *broader than* this; let the proportion be fitted and measured.

It will be necessary to make a collection of such forms of sentences as he understands, one or two examples of every form, that upon occasion he may have recourse to them as to rules, and precedents in the like cases: and amongst other forms, forget not imperatives and interrogatives, for which he will have early and frequent use. Gather up all the forms of interrogation; *when? who? what? where? whose? whence? whether? how long? many? great?* &c. Form sentences upon every one of these interrogations, in things familiar; and subjoyn proper answers; as, *whose book is this?* A. *mine, thine, his, thy brothers, the Masters*, &c. *When shall we go to bed?* A. *by and by, at ten a clock*,

clock, an hour hence, &c. Imperative forms. *I pray give me the book, take up the pen, lay down the paper, ſit down, riſe up, put on your hat, open the door, ſhut the door,* &c.

For exerciſe, you may find great variety for him; ſuch as, to vary the circumſtances propoſed; to deſcribe things from their cauſes, from their contraries, by comparing them with other things; To form a narration of things ſeen, to write Epiſtles. Let him be put much upon the exerciſe of memory; and that not only in looſe words, and incoherent ſentences; But let him beſtow much time and pains, in learning by heart, in the firſt place for his *Lectiones ſacræ* upon the Lords day, and Holy-dayes, the Lords Praier, the Creed, and ten Commandements, with the Church-Catechiſm.

The ſolemnity and frequency of Divine Service, would have good effects upon him, being placed conveniently oppoſite to the Miniſter, with a book before him, and one to direct him, till cuſtome enable him to direct himſelf. This would not only excite him to piety and devotion; but in progreſs of time, he would come both

both to understand, and have by heart, the greatest part of Divine Service. Some other select passages of Scripture might be recommended to him, as the first Chap. of *Genesis*, the History of our Saviours Nativity, and sufferings. The most proper books among profane Authors for him to practice on (I think) of many, were *Æsops* Fables, and some playes where there is much of Action.

In the application of all I have said, respect is to be had to the quality of the person to be taught; whether young or old, dull or docile: How to comply with these circumstances, must depend upon the prudence of the Teacher. When his progress is so considerable that it may be said of him; He understands the English tongue tolerably well: He may then be put upon the study of Grammar; which will be the more easy to him; because the course of study he was in before had a mixture of Grammar in it, as I have said. Afterwards (or before if you please) he may be taught Arithmetick and something of Geometry.

CHAP.

CHAP. VIII.

Of an Alphabet upon the Fingers.

BEcauſe the conveniency of writing cannot alwaies be in readineſs; neither yet tho it could, is it ſo proper a *medium* of interpretation between perſons preſent face to face, as a Hand-language: It will therefore be neceſſary to teach the Dumb Scholar a Finger-Alphabet; and this not only of ſingle letters, but alſo for the greater expedition, of double and triple Conſonants, with which our Engliſh doth abound.

After much ſearch and many changes, I have at laſt fixt upon a Finger, or Hand-alphabet according to my mind: For I think it cannot be conſiderably mended, either by my ſelf, or any other, (without making Tinkers work) for the purpoſes, for which I have intended it; that is, a diſtinct placing of, and eaſy pointing to the ſingle letters; with the like diſtinct, and eaſy abbreviation of double and triple Conſonants. I deny

I deny not but there may be many more abbreviations than I have provided for, namely of initial Syllables, and Terminations; but these I have past by at present, for two reasons. First, I think there will be little need of them; For I doubt not but that with the provision I have made, an habit equal to that in those who write a quick hand, may very near make the Hand as ready an Interpreter, as the Tongue. 2ly. If they should be judged needful, I have taken care, that with a few Rules they may be added, without altering any thing of the institution of this present Scheme.

The Scheme (I think) is so distinct and plain in it self, that it needs not much explication, at least for the single letters, which are as distinct by their places, as the middle and two extremes of a right line can make them. The Rules of practice are two. 1. *Touch the places of the Vowels, with a cross touch with any finger of the right hand.* 2. *Poynt to the Consonants with the Thumb of the right Hand.* This is all that I think to be needful for explaining the Scheme so far as concerns the

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the single letters: and for the double Consonants,

I have made provision for abbreviating a threefold combination of them: I shall here only give the Rules of abbreviation of the several combinations I have made choice of, referring the reader for the reasons of my choice, to the following Treatise of double Consonants.

The first combination of double Consonants I make provision for is, when *h*, *l*, *r*, *s*, come in one syllable with other Consonants; and that two waies, either before or after another Consonant, as in these Examples.

1. H.	light the	3. R.	heart trie
2. L.	salt title	4. S.	hast hats

1. When these 4 letters are prefixt to other Consonants, as in *light*, *salt*, *heart*, *hast*; the Rule is; *point skin to skin with the four fingers of the other Hand respectively to the Capital letter* (which in the present example is T) *to which they are prefixt*; which by Institution designs the double

ble Consonants *ht, lt, rt, st.* 2. When the same four letters follow another Consonant as in, *the, title, trie, hats*; then, *point* (as before) *to T with nail to skin*, which gives, *th, tl, tr, ts.*

A second combination of double Consonants worthy of this care of abbreviation, because of their frequent use in English, is when the Liquids *m, n*, come before the Mutes and Semimutes, *b, p, d, t, g, k*, or *c*, That is, *m* before *b, p* and *n* before *d, t, g, k, c.* The Rule is. *Touch the place of these Mutes and Semimutes with the first and second finger joyned;* and this by institution gives the Liquid and the respective Mute or Semimute following, as in *lamb, lamp, hand, hunt, anger, ink, France.*

The third abbreviation is of Trible Consonants in the beginning of a word or syllable, where *s* is alwaies the first; as in, *schism, skrew, shrine, spread, strong, scrag, sphinx, sosthenes, splinter, justle*, &c. The Rule is, *Joyn the thumb to the finger pointing to the other two Consonants.* And so much for abbreviation of double and trible Consonants.

But observe here, that as School-boyes are

are to learn *amaviſſe*, before *amaſſe*, and ποιέω before ποιῶ; and to write words at length, before they learn ſhort-hand; ſo let your Dumb Scholar, and others that would practice Dactylology, firſt know, and practice upon the ſingle letters, before they come to practice upon the Rules of abbreviation.

Now tho this way of ſhort-hand, or abbreviation of words be diſtinct, eaſy, quick, and comprehenſive; yet is there another way of practiſing, which comes nothing ſhort of this in other reſpects, and in one reſpect ſeems to be preferable: That it ſuppoſes nothing neceſſary to be known for practiſing, but the places of the ſingle letters, without making new Rules for diſtinguiſhing double and trible Conſonants, from the ſingle. The Rule is; *Point to all the ſingle letters of the double or trible Conſonant, ſimul & ſemel:* which will be found to be as eaſy as poynting by the former inſtitution with one ſingle touch, as will appear in theſe examples; *when, which, the, light, blunt, brand, grunt, plaſter, ſpread, ſtrong*, &c.

If here it ſhould be objected, that this will

will breed confusion, leaving the Reader doubtful what letter to begin with. To this I answer. 1. For double Consonants in the beginning of a syllable, this objection can never be of any force; for there is no English word found wherein their order is inverted, as will appear from the following Treatise of double Consonants. 2. For double Consonants in the end of a word, so far as concerns the second combination formerly mentioned, there can never be any mistake; for scarce (I think) is there any example occurs wherein their order is inverted; or if there did then the rule will be in that case, *point to the single letters distinctly.* So that the objection is of no force, except only against the first combination of double Consonants, and that only in the end of a Syllable: For there are some, but not many examples, where the order is inverted as, *salt title, hast hats.* But to this it may be answered: That in a continued sentence, the sense will easily determine the case, and take away all ambiguity: as here lies one *hat*, there lie two *hats.* But if you have occasion to distinguish

ſtinguiſh the word *hats*, from *haſt*, then you muſt point to all the letters diſtinctly.

And this compendious and expeditious way of Cheirology may be extended further, than this abbreviation of double and trible Conſonants: For they that are Maſters of a Language, and have got a conſiderable readineſs of practiſing, by diſtinct touches of ſingle letters, will find it as eaſy, as it is uſeful, to expreſs whole ſyllables, and whole words that are Monoſyllables (ſpecially in words of common uſe) with one multiplyed touch, *ſimul* and *ſemel*. My meaning by this multiplyed touch *ſimul* and *ſemel* is, not to touch diſtinctly all the letters of a ſyllable or word, by the *Index* or any one ſingle finger of the other Hand ſucceſſively, making ſo many diſtinct motions from place to place, as there are letters in the ſyllable: But ſo to order the matter, that an equal number of the fingers of the other Hand may be uſed for a ſimultaneous touch to make the word or ſyllable, according to the number of letters it ſhall happen to conſiſt of. This way of expreſſing ſyllables and words Monoſyllables,

bles, with one multiplied touch, after a little practice, will be as easy and quick, as pointing to one single letter with a single touch; it will be also as distinct as pointing to every letter successively, with one finger.

But let it be well observed here, that tho I would have a whole syllable expressed with one single action, and motion of the whole Hand; yet let not the distinct touches be so simultaneous, but that it may appear where the word begins, and where it ends.

Here I think will be a proper place to give a Rule, how to know when a word is ended, and it is this. *Let there be a continued actual touch of more fingers, or one at least, till the word be ended*; or if this happen (as it may in some words) to be uneasy, then make a quick motion from the place of the last letter of the word: But this difficulty after a little practice will vanish away.

Now because this discourse may fall into the hands of some that have trifling Heads like my own, to whom it will be acceptable to know what other waies of Dactylo-

Dactylology I have had under consideration: I will, for satisfying their curiosity, and perhaps saving them the expence of vain labour, mention some other waies which I have considered, and after examination rejected.

The first way is to make the figures of the letters upon the Hand, which differs only from writing in this; that the one is transient, and the other permanent. It is true, that this is more ready upnn all occasions than writing; but neither distinct nor quick enough to be taken notice of here.

A second way is the forming of the letters Symbolically; as to make an X by crossing two fingers; a cross touch upon the end of the thumb for a T; three fingers joyned for M, two fingers joyned for N, &c. This Symbolical way I reject, as being defective in two respects: First, it is defective in the point of symbolizing; for it will not be easy with the fingers to represent the shapes of all letters. This way of expressing the letters Symbolically, is somewhat like the conceit of a symbolical Character, and a Language of Nature,

which ſome have talked much of; but without any foundation in Nature, and therefore all attempts of Art muſt be in vain. But ſecondly, this way is too laborious, and ſo defective in anſwering one of the principal ends for which Cheirology is deſirable, and deſerves the name of an Art: That is, a quick and ready expreſſion, and interpretation of the conceits of the mind, coming as near as poſſible to that of the Tongue.

The third way is to deſign every ſingle letter by a ſingle touch; which I judge much the better way, than either of the other two; as being more ſimple, diſtinct, eaſy, and of quick diſpatch. Having therefore reſolved upon this, that the moſt proper way to expreſs the ſimple Elements of the Alphabet would be, by a ſingle touch; it remained that they ſhould be diſtinguiſhed amongſt themſelves by their places. And here again, after conſideration and tryal, I have rejected ſeveral waies of diſtinguiſhing the letters by places. Firſt, I provided places on both Hands, back and fore; but finding this laborious and intricate, and perceiving that

that there might be distinction enough found in one hand, I placed the whole Alphabet upon one Hand; yet so as to make use of an equal number of places on both sides of the Hand: But at last finding that all the necessary distinctions could be provided for, on one side of the Hand, I fixt upon the institution of the present Scheme; which I think is done with that consideration and care, that as I said before, it cannot be much improved.

Here I thought to have kept one secret of Art to my self; at least till I should see how other things I had discovered should please: But I must confess my own weakness, that in things of this Nature, I am *plenus rimarum*. I know not how considerable this secret will seem to others; But I declare (that I may confess another weakness) that I was much affected with it: For after a long and tyresome chase, and having pursued my Notion, as I thought, to a *nil ultra*; when I was set down, and pleasing my self with my purchase; on a sudden I fancied my self to see an one-handed deaf man coming to me,

and asmuch as I could read in his eyes and countenance, expostulating with me thus? What? Have you done? Is there no help for me? Shall one Eye serve in Schematology? & one Ear in Pneumatology? one tongue in Glossology? yea one hand in Typology? and shall not one Hand serve in Dactylology? With this fixing my Eyes stedfastly on his Hand stretched out, I thought with my self, that I could discern a Mouth and a Tongue in his Hand: the Thumb seemed to represent the Tongue, the Fingers and the hollow of the Hand the lips, teeth, and cavity of the Mouth. Upon this I made Signs to him to try to follow me, as I pointed to the letters on my own Hand; which he did so exactly that the surprise put me in a maze for some time. But when I had overcome my passion, reflecting upon this wonder both of Nature and Art, I observed that of the 24 letters, he pointed to 16 with his Thumb. Thus I dismissed my Deaf and lame patient, bidding him be of good courage, and live in hopes of an effectual and speedy cure.

But after he was gone, I began to consider

ſider with my ſelf. What? ſhall I magnify this as a myſtery and wonder of Nature and Art, to find a way, to Metamorphize a *Chymæra* into a Man, or, to make a black Swan white? This will be *magno conatu magnas nugas agere.* As I was thus thinking, it happened that I was ſmoking a pype of Tobacco; and having a preſent occaſion to diſpatch a ſpeedy meſſage; I was unwilling to let my Pype go out, and ſo at that preſent was depriv-ed both of the uſe of my Tongue and one Hand: wherefore reflecting upon the leſſon which I had lately taught the one-handed Deaf man, or ſhall I rather ſay, which he taught me; I call a boy to me, whom I had trained up in Dactylology, and delivered my meſſage to him with one Hand. He ſtaring in my face with a ſmiling countenance (for I had never ſpoken to him before that time with one Hand) performed the meſſage very rea-dily, and returned me a ſpeedy anſwer, uſing the ſame Organ of Interpretation (for I ſurpriſed him eating an Apple) to me, which I had done to him. This gave me occaſion to think, that this point of

Art had not only one-handed Deaf men for its Object; but that there might be many other cases wherein it might be useful to speak with one hand: as to speak to a Dumb man riding on Horse-back, holding the reins with one hand, and with the other asking him. *How do you do?* or sitting at Table; holding the Cup with one hand, and with the other saying, *Sir my service to you.* Or, with one hand holding the knife, and with the other asking; *what will you be pleased to have?* &c.

And if any man could be supposed to have that readiness and presence of mind which is said to have been in *J. Cæsar* he might at once keep up discourse with 3 several persons, upon several subjects, talking to two with his two hands, and to a third with his Tongue. And here by the by, it is observable, that without any distraction of mind one may speak both to a Deaf and Blind man at once, expressing the *same* words by the Tongue to the Blind man, and by the hand to the Deaf.

Nay further I declare, that as much as I have as yet been able to discover by practice, I judge the way of speaking with one

one hand preferable to the other of using both, and that in all respects, unless it be in this one; That it is not capable of distinction enough for all the necessary abbrevations of double Consonants, which perhaps (after a readiness and habit acquired) may not be needful; or if it were, yet I know that one hand is capable of many more distinctions than I have as yet made use of: but at present I think it not *tanti* to make use of them, for I foresee, that the conveniency will scarce ballance the inconveniencies.

Now tho the practising of this Hand-language be so plain and easy from the following Scheme, and the preceding explication of it, that any one who can but read (without knowiug to write) may become his own Teacher; yet seeing the nature of all skill and cunning deserving the name of an *Art* is such, that something of instruction *viva voce*, is, if not necessary, at least useful; So here something of direction from one well skilled in the practice of this Art, either *viva voce*, or (which is the same thing, and as Emphatick a way of teaching if it were

practiced)

practiced) *digito demonſtrante,* will be of good uſe to young practitioners.

I will add one help more, for enabling young beginners to practice more eaſily and readily: Let a pair of Gloves be made, one for the Maſter, and another for the Scholar, with the letters written upon them in ſuch order as appears in the following Scheme. To practice with theſe, will be eaſy for any that do but know their letters and can ſpell; and a ſhort time will ſo fix the places of the letters in the Memory, that the Gloves may be thrown away as uſeleſs.

Having laid open the whole progreſs of my thoughts in this diſcovery of Cheirology, it remains that I make good my promiſe in the Title-page of ſhewing, that it is uſeful both in caſes of neceſſity and conveniency.

Firſt then I think none will deny, but that it is neceſſary for perſons *Deaf* or *Dumb*; and therefore I ſhall ſpare my ſelf the labour of proving it any other way, than by referring the Reader to the Series and ſcope of this whole diſcourſe. But here it will be very proper to add ſome-

thing

thing how it may be made *moſt* uſeful to the Deaf man, and in order to this let it be conſidered. That the nature of Cheirology is ſuch, that it is only uſeful in ſociety and converſe with others: So that if the Deaf man be trained up in this Art, and have no body about him skilled in it but himſelf, it is of no uſe to him at all: As on the contrary, if all people were as ready in this Hand-language, as he may rationally be ſuppoſed to be; then the Hand between him and others, would be of the ſame uſe that the Tongue is to other people amongſt themſelves. But ſeeing (according to the received way of training up youth hitherto, by which no care is taken of teaching them Cheirology) he can have none, or very few to converſe with him in this way: It will be the concern of the Deaf perſons friends (beſide the influencing all his familiars to acquaint themſelves with this Art for his cauſe) to chuſe ſome fit perſon to be a conſtant companion to him, and to be his Interpreter upon all occaſions amongſt ſtrangers. And which is yet a more weighty concern: It would be their

wiſdom

wisdom to project a match for the Deaf person, *man* or *woman* betimes; that the person they are to match with, may be trained up in Cheirology, which would add very much to the comfort of their life; they being thereby able, to express and communicate their sentiments intelligibly, not only by Dactylology in the *light*, but also by Haptology in the *dark*.

In the second place I am obliged to shew the general usefulness and conveniency of this Art to all mankind. The particular cases wherein it may be convenient, are many more than can be expected, that I should instance in: I shall therefore mention only three generals. 1. Silence. 2. Secrecy. 3. Pleasure. In cases of necessary Silence; it may be useful to inferiors in the presence of Great persons; to those that are about sick people, as near relations, Nurses, &c. So for Secrecy, if people be in company, but not so near as to whisper one another in the Ear, it performs the office of whispering; it delivers, and receives secret messages, &c. And lastly for pleasure; it may be an ingenious and useful divertisement

and

and pass-time for young people.

Here it may be objected, That all the conveniency will not ballance the pains that must be taken in learning this Art. This objection puts me in mind of another, and that a very considerable Conveniency; and therefore I answer. The pains that is taken about learning a Hand-language, if it were learned in due time, that is, in Childhood, would be so far from hindring, that it would contribute much to the Childs progress in learning to read, if he were taught both to know his letters, and to spell upon his fingers. This would please the Childs fancy, and imprint the letters the sooner upon his memory, having his Book alwaies open before his Eyes. So that I look upon this as the greatest conveniency of Cheirology, That it would be of so great use, and learned with so little pains.

And this consideration put me upon thinking of a more adviseable way of training up young ones, than any yet practised, that is: To begin children to know their letters upon an Hand-book instead of an Horn-book; or at least to have

have a Hand-book upon the backside of their Horn-book: For I make no doubt but before t ey could come to know the names and Figures of the letters, they would know their places upon the Hand, and be able to point to them with the other, or the same Hand, as readily as to pronounce them with the Tongue.

And who will not acknowledg that it were a thing desirable, and deservedly to be esteemed as a peice of liberal education; to be able to speak as readily with the Hand as with the Tongue? And therefore who would not think it worth the while, to train up young children from their a b c in Glossology and Cheirology, *pari passu?* specially seeing the one is no hinderance but a considerable help to the other, for I may truly say in the Poets words,

——— *Alterius nam*
Altera poscit opem res, & conjurat amice.

I thought for the use of children, to have given some directions for facilitating the Elementary Discipline of knowing the letters, spelling, and reading; whereby not only the old way might be made

made much ſmoother, but alſo by one and the ſame labour, a conſiderable acceſſion of uſeful knowledge might be attained by the young Scholar: That is, together with reading in Books, reading on the Hand; and as a neceſſary appendage of this, writing upon, or ſpeaking with (call it which you will) the Hand: whereas writing with the Hand according to the common uſe of the word is by it ſelf a diſtinct and laborious Art. But I fear leſt ſome may think that I have already ſtuft this diſcourſe too much with trifles, and pedantry.

AN

AN APPENDIX TO CHEIROLOGY.

Containing

Some Critical obſervations upon the Nature and number of Double and Trible Conſonants.

MUCH hath been ſaid by many learned men to deſcribe the nature and cauſes of Simple Sounds, which are the firſt Elements of Speech; as alſo of Diphthongs and Triphthongs (if any ſuch be) coaleſcing of 2 or 3 Vowels into one Syllable: But of the coalition of two or more Conſonants into one Syllable, little or nothing (for what I know) hath been ſaid by any. And yet this compoſition of Conſonants deſerves as much to be explained, or rather more than

than the other of vowels, becauſe of its greater variety and uſe; Eſpecially by him who would treat of a Philoſophical Language or a Grammar for Deaf perſons: So that my firſt Treatiſe of *Ars Signorum* or Sematology with this ſecond of Cheirology which is a legittimate offſpring of that, obliged me to this enquiry.

If the Queſtion ſhould be put: whether in framing of words it were a more rational inſtitution, that a ſingle Conſonant, and a ſingle Vowel ſhould alwaies ſucceed one another alternatly; or that there ſhould be a mixture of Syllables allowed, made partly of Diphthongs, partly of double conſonants? My own judgment in the caſe is. That both Nature and Art would make their firſt choice of an alternate ſucceſſion of ſingle Vowels and Conſonants, and that their next choice would be, of ſuch compounded vocal ſounds, as are commonly called Diphthongs, and deſcribed by Grammarians; and ſuch compounded cloſe ſounds, as are moſt natural, and of an eaſy pronounciation, for deſcribing of which this diſcourſe is intended.

But

But that such a Language could derive its origine from blinded Nature, and not from Art, or a Divine institution, is no waies probable: For I conceive that there is now no Language upon the face of the Earth in common use, but admits of a mixt composition of Diphthongs, and Double Consonants. And the more rude and uncivilized the people are, the more frequent this composition is with them, and the sounds the more harsh and unpleasant. That roughness of speech wears out with roughness of Manners, and smoothness of the one is a natural consequence of the smoothness of the other, the English Language and Nation is a sufficient proof. And if this be granted it is argument enough to prove; that Nature without Art or some more powerful assistance, would never bring forth a language in which there should be no Diphthongs or, Double Consonants. Nature, I say, as it is now in its degenerate estate: How she would have decided this Question in her primitive integrity and perfection, or rather how she did actually decide it, as we are assured from Gods word

ſhe did, cannot be otherwaies known to us, than by ſome probable conjectures.

It is generally thought by the learned, that *Adam* was the Author both by Invention and Practice of the Hebrew Tongue; not as we have it now in any of its Dialects; yet if it be granted that the Hebrew had for its mother that Language which *Adam* did invent and ſpeak; we may with good reaſon conclude, that corrupted as it is, it ſtill retains the ſubſtance and *Genius* of its Mother; There being ſome indelible Characters upon all Languages which common accidents cannot deface. For tho the tract of time from *Adam* to *Moſes*, was longer than that from *Auguſtus*, or *Alexander* the Great, to this preſent age; yet the common accidents which are known to change a language could not be ſo many and effectual, for changing the firſt language to that which is now called Hebrew, as they have been known to be for changing the pure Greek, into that which now is uſed by a remnant of the Grecians, and called Modern Greek; or for changing the pure Latin *extant* in Claſſick Authors, into that

that which is now called Italian; which languages notwithstanding keep still so manifest Signatures of their origine, that it is easy to discern what Stem they are branches of.

Now amongst several other defaced reliques of that first and Divine language remaining not only in the Hebrew, but also to be found in many other of the Eastern Languages, this seems to be very considerable. That the Hebrew admits of no composition either of Vowels or Consonants in that same Syllable; But all their Radical words consist generally of a single consonant, and a single vowel, succeeding one another alternatly; which cannot well be supposed to be the effect either of degenerate Reason or Chance.

There are two things more in that ancient language which seem to me unaccountable, without referring them to a supernatural cause. One is, that their radical words consist generally of 3 consonants, and for the most part are Dissyllables; and these Radical words how different soever in their consonants, yet have still the same points, *Cametz* and *Pathach*;

thach; which in oral prolation make the same vocal sound with א, which, as it is the first letter of their Alphabet, and from them in all other Languages; so is it the first vocal sound in Nature. And that originally all their words were Dissyllables (as some conjecture) is not improbable: whereas in all other Languages their Radicals are generally Monosyllables, and I think originally have all been so; yea so far so, that there are many Monosyllables found to be *Compositæ*, and *Decompositæ*, as the Learned *Doctor Wallis* has ingeniously observed in his English Grammar.

Another thing is, that the Hebrew does often contract a whole sentence into one word, incorporating not only pronouns both prefixt and suffixt, but also prepositions and conjunctions with the radical word. And this *compendium* did first excite me to do something for improving the Art of Short-hand; That drove me before I was aware upon a real Character; That again after a little consideration resolved it self into an Effable language. This at last has carried on my thoughts to consider

consider of a way how a language may be attained by Reading and Writing, when it cannot be attained by Speaking and Hearing. So that this Series and chaine of thoughts has for its first link an Hebrew Grammatication.

I take notice of three things more in the Hebrew, which are considerable upon the account of a rational Institution, which is not to be found in the common usage of other Languages; but not so mysterious as the other three which I have already mentioned. The first is their separating the Vowels from the Consonants, both by place and Character; which has something Natural, and Symbolical in it: For there is something in the structure and composition of the words, analagous to *Man* the Author of them; the Characters of the consonants being of large dimensions, and divisible into many parts, represent the gross and material part of Man, the *Body*: The Vowels being expreſt by indivisible pricks or points, do answer to that which is more properly indivisible, the *Soul*. This, together with a more accurate distinction of Vowels into

long and ſhort; as alſo a more accurate diviſion of Conſonants from their Phyſical cauſes, that is, the Organs of formation, tho of late uſe (according to ſome later writers) in that moſt ancient language; yet it ſhows (at leaſt) how the *Genius* of the Tongue is fitted not only to comply with ſuch an Inſtitution; but alſo that from all Antiquity there have been ſome *veſtigia* of that Primitive and Divine, or purely rational Sematology, taught by Almighty God, or invented by *Adam* before the fall (unleſs any ſhould have the confidence to affirm, that this among many other unhappy conſequences of the fall, was one; that it did not only in part deface, but totally wipe out all former impreſſions, leaving our firſt Parent as the blind Heathens would have him, *Mutum & turpe pecus.* That is, having his Soul as much *Tabula raſa*, as ours is when we come into the world) which have given occaſion to Grammarians of later times to bring that part of Grammar to the preſent eſtabliſhment. But whatever be the deciſion of that grand controverſy about the Antiquity of the Hebrew

brew points, the obſervation I have made here will ſtill be conſiderable. Wherefore I paſs to a ſecond thing conſiderable, which without all controverſy is more ancient and of longer ſtanding than ſome would have the points to be. It is agreed upon all hands that there are three principal and cardinal Vowels א ו י of as ancient a date as the firſt invention of letters; which without giving offence to thoſe that are for, or advantage to thoſe that are againſt the Antiquity of Points, may *ſano ſenſu*, be ſtyled *Matres Lectionis*; Becauſe all other Vowels are but intermediate ſounds and as it were the *Proles* or ofspring of theſe three. Wherefore, without interpoſing as to the main ſtate of that ſo momentous queſtion; That which I take notice of here as conſiderable, is this: That it has been a thing done with great care and judgment, the eſtabliſhing theſe three letters for the Cardinal vowels or *Matres Lectionis*; For they are the three moſt diſtinct vocal Sounds that are in nature; even as diſtinct as the two extremes and the middle of any thing that has dimenſions can be; all other

Vowels

Vowels being but intermediate Sounds to, and gradually differing from them. א is a Guttural Sound, and of all other Vowels the moſt apert; ו is Labial and of Vocal Sounds the moſt contracted, י is Palatine and equally diſtant from both. And as it is poſſible that there might be a Language copious enough, allowing only the uſe of three Vowels, and ſecluding double Conſonants in that ſame ſyllable, provided that the Radical words were Diſſyllables; which ſome think to have been the Inſtitution of the pure and uncorrupted Hebrew: So would ſuch an inſtitution be much more eaſy and diſtinct than any language in being; the intermediate ſounds to theſe three radical vowels being leſs diſtinct, and therefore ottentimes giving occaſion of miſtakes.

I have had occaſion to mention the third thing conſiderable in the preceding Treatiſe of Cheirology; to wit, Their naming the ſimple Elements of letters by ſignificant words; *Aleph*, *Beth*, *Gimel*, &c. which without doubt is as ancient as the uſe of letters, or at leaſt as *Moſes*; The truth of this the Grecians have confirmed by

by a very convincing, but withal a very inartificial argument in naming the letters corruptedly after them, *Alpha*, *Beta*, *Gamma*, &c. as I have noted before.

Tho I have in *Ars Signorum* given such an Analysis of simple Sounds, both Vowels and Consonants, as seemed to me most natural and proper upon that occasion; yet I must here repeat what has been said there of the nature and number of simple Consonants; otherwise the Rules of composition I am to give, cannot be understood.

Consonants then are first to be divided into, { close : semiclose. 1. Close, when the appulse of the Organs stops all passage of breath thro the mouth; and they are in number 9, *m*, *b*, *p*, *n*, *d*, *t*, *ng*, r, k. This closure again is threefold. 1. A perfect shutting of the lips and this produces *m*, *b*, *p*, 2. the fore part of the Tongue with the Palate, hence *n*, *d*, *t*, 3. the hinder-part of the Tongue with the Palat hence, *ng*, r, k. These nine Consonants are capable of another threefold division, upon the account of a threefold accident which

equally

equally happens to the foresaid closure of the Organs respectively. For, 1. if the breath and voice be *simul* and *semel* stopt with the closure of the Organs, like the throwing of a stone against a Rock; this produces the 3 mutes *aP*, *aT*, *aK*, 2. If after the closure of the organs, a *conatus* of breathing be continued, and the repercussion of the breath from the passage stopt, making an inward murmuring like the breaking of a wave against a Rock, which is quickly spent and husht into silence; the same closure of organs produces the 3 Semimutes, *aB*, *aD*, *a*r. 3. If upon the closure of the organs, there be a free passage of breath and voice thro the Nose, like the sounding of an Organ-pipe, when the key is touched; this produces a third distinction of Sonorous letters from the same closure, *aM*, *aN*, *aNG*, (by *ng* I mean that sound which is heard in *anger*, *hunger* not in *danger*, *hinge*.) And these 3 sounds may be continued after the closure of the Organs, as long as one will. I have placed a vowel before these consonants, because their *power* appears more distinctly, than when the vowel follows.

Hence

Hence I infer, that the number of close consonants is 9, neither more nor less; not more I say, because I find that some add 3 more, *hm*, *hn*, *hng*, calling them Mutes, making only this difference between them and, *m*, *n*, *ng*, that the one is uttered vocally, the other whisperingly: But if a whispering and a vocal breath make distinct letters, there will be more distinctions of letters than the Authors of this opinion seem to approve: and if this be reason enough to multiply letters, I know not but soft speaking, and crying about the Streets may have the same power. That certain other distinctions in the forming of these, or any other letters, may be fancied by curious and Musical ears, from the modes and degrees of shutting the organs, the intention and remission of the voice, the Tone being more grave, acute, &c. I readily grant: But how to make more distinctions from these 3 closures, plain and easy to be discerned, and worthy to be so far taken notice of, as to be placed in the Alphabet, is a thing I could never reach.

Again, I said no less than 9, because common

common cuſtome has made one of theſe a double Conſonant, writing it with two letters *ng* the ſound of neither of which is to be heard in pronounciation ; but a perfectly diſtinct ſimple ſound from the power of both, as in *ſing*, *ring*, *long*, and from all letters whatever. And it is obſervable that our Engliſh is very unconſtant in expreſſing the power of this letter: ſometimes by *ng* in the end of a word, as *ſing*, *hang*, *long* ; where nothing of the ſound either of *n*, or *g* is heard ; Sometimes by *n* alone before its brother conſonants, *k*, *g*, before *k* every where ; as *ink*, *rank*, *drunk*, before *g* in the middle of a word, as *longer*, *hunger*, tho not alwaies ſo, for in *danger*, *ſtranger*, &c. *n* keeps its own power.

If any be ſo far prejudiced with the uſe of the Latin (which alwaies expreſſes the power of this letter by *n*) and other modern Languages ; let him look a little higher to the Greek, where he will find three things conſiderable of this letter. 1. That it is no double conſonant, but expreſt with one ſingle Character, γ. 2. That it is expreſt not by a letter of a diſtinct

tribe

tribe (as in the Latin) but by one of its own fraternity, that is, by a letter formed with the same closure of the organs with it self. 3. That it never goes before any other consonant in that same Syllable, but those of its own tribe γ κ χ ξ; which is according to the true reason and Rules of compounding consonants in the end of a syllable, as I shall make appear by and by. The *Romans* finding that it was a sonorous letter, reject γ as being a Semimute, and substitute for it *n* agreeing with it formally in that same analogy of sound, but differing from it materially, as being formed by a distinct closure of Organs.

Great *Vossius* may excuse my being so long upon this one letter: For he after spending a whole Chapter upon it, concludes with a profest uncertainty of judgment, whether to make it a single letter, a *Sesquilitera*, or a double consonant. I thought once I had been singular in my opinion about it; But afterwards meeting with *Doctor Wallis's* English Grammar, I perceived that he had given the same account of it long before me.

The

The Semicloſe ſounds are of two ſorts, ſome of them are formed from the whole-cloſe ſounds and are called Aſpirats, becauſe they are formed by a partial opening of the Organs, and ſending forth the breath thro the mouth; hence the number of them are ſix, *f*, *th*, *χ* from *p*, *t*, *k*, and *v*, *th* (as in *that*) *gh*, from the Semimutes *b*, *d*, *g*; for there can be no aſpirats from *m*, *n*, *ng*. 2. That nimble inſtrument of articulate voice, the top of the Tongue brings forth three more ſemicloſe ſounds *l*, *r*, *s*, and ſo doubles the nnmber of letters formed by the other organs. 1. L is formed by a cloſe appulſe of the top of the Tongue to the palat, the ſides not touching, but leaving an open paſſage, which diſtinguiſhes it from, *n*, where the appulſe makes a perfect cloſure. 2. The appulſe is from the ſides of the Tongue the top not touching, but leaving an open paſſage to force out the breath; hence is formed the letter S. 3. A repeated or multiplyed appulſe of the tongue to the palat, by a quick motion of trepidation which produces R. S, has affinity to the cloſe mutes *p*, *t*, *k*, and therefore admits

of

of being raiſed to a ſemimute, Z, both of which are capable of aſpiration, as the cloſe mutes and ſemimutes *Sh, Zh*. Theſe ſeem to me to be all the ſimple conſonants in nature perfectly diſtinct, and to be made uſe of in a Philoſophical Language for which this was firſt intended. And I think that this Analyſis of them from their Phyſical cauſes is plain & eaſy, for to purſue all the minute differences of ſounds, as it were endleſs, ſo were it uſeleſs.

I come now to ſpeak of compounding two or more conſonants into one ſyllable, and that two waies, either in the beginning or end of it; a thing well to be conſidered by him who undertakes to frame a language by Art from the principles of Nature, and of no ſmall uſe in fitting a Grammar for Deaf perſons.

That I may proceed the more diſtinctly in this enquiry, I will begin with the definition of a Syllable, and paſſing by ſeveral other deſcriptions, I will keep to that of *Priſcian* and approved by *Voſſius*; as being moſt full and appoſite to my purpoſe. *Syllaba eſt vox literalis, quæ ſub uno*

uno accentu, & uno ſpiritu indiſtanter profertur. Where I ſuppoſe by *ſub uno accentu*, and *uno ſpiritu*, there can be no more than one Vowel or Diphthong in a Syllable; which as a *terminus communis* unites the extreme conſonants on each ſide; Even as the *copula* units the Subject and the Predicate making one Propoſition.

My firſt Rule ſhall be: To ſpeak properly and in a ſtrict ſenſe, There can be no compoſition of Conſonants amongſt themſelves, either in the beginning or end of a Syllable, but what is preternatural and inconſiſtent with the definition of a Syllable. Who does not perceive, that even in the compoſition of Mutes and Liquids in the beginning of a ſyllable as *prat*, *plot*, which of all compoſitions of conſonants is moſt common, and alſo judged moſt eaſy, as not making the preceding Vowel long by poſition; yet I ſay even in thoſe it is eaſy to perceive a *diſtantia terminorum*, and that they are united by a rapid ſpirit, as a *terminus communis*; and cannot poſſibly be otherwiſe, ſeeing they are formed by diſtinct cloſures of the organs;

organs; and therefore there must be a *Transitus* from the one to the other; which appears yet much more evident in the end of a Syllable; with which kind of composition our English abounds very much as, *Table, ridle, sadle, little,* &c.

It is true in some compositions of consonants the *transitus* not being from organ to organ, but from one degree of vocality to another, as in *lamp, hand, ink*, the *transitus* here is so quick, that it may be said to deceive the Ears; much like the colours of the Rainbow to the Eye, as it is in that ingenious description of *Arachnes* Web. *Ovid. Lib. 6. Met.*

In quo divexi niteant cum mille colores,
Transitus *ipse tamen* [illegible] *lumina fallit:*
Usq; adeo quod tangit idem est; tamen ultima distant.

But passing by the dictates of right reason and Art, which certainly have not been followed in the primary Institution of any language unless it be of the Hebrew alone; let us look to Use which is the Sovereign Lawgiver to all languages. And more particularly to the usage of the Greek, which gives laws of Orthography to all the Occidental Languages: and

first for the compounding of Consonants in the beginning of a Syllable.

Had the Grecians been as careless of Euphony and polishing their words in the terminations, as they have been in the initial Syllables, their language had been as much inferior to some others in Euphony, as now it is esteemed more pleasant and graceful. What more rude sounds, uneasy to be pronounced, and harsh to the Ear, than ψάλλω, ζάω, ξαίνω, χθών, φθίσις, πῶσις, δνόφος, βδήλυγμα, μνῆμα, γνῶσις, κτῆμα, κνάκων, πνεῦμα, δνήσκω, τλήμων, &c. What cause to ascribe this to I am uncertain, whether to the rudeness of their language together with others, in its first origine; or to some modish affectation of times and humors, or more particularly to a Poetical humor of Syncopizing and contracting their words, which seems to me most probable. But this we see is certain, that they have taken to themselves such a liberty of compounding Consonants in the beginning of a Syllable, that their greatest admirers the *Romans* have forsaken them in this; there scarce being any such double consonants, as any in the fore-mentioned examples

examples in the beginning of a word, in all the Latin Tongue; unleſs it be in ſome few words, which are manifeſtly of a Greek origin. They have gone ſo far, that almoſt no Rule can be formed for their initial Syllables, but *Quidlibet cum Quolibet*. Howbeit I will endeavor to reduce the uſage of the Greek in this particular to ſome General Rules.

Firſt, *There is no double conſonant to be found in the beginning of a Greek word, but one of them is a Lingual:* theſe are, *n, d, t, l, r, s, z, th, θ, sh, zh.* Hence I obſerve that *Voſſius* goes too far, when he bids in imitation of the Greek to divide *a-gmen, te-gmen*; unleſs he could have produced authority for a ſhort vowel before this poſition, or a word beginning with *gm*, neither of which I think can be found.

2. *The liquids (commonly ſo called) l, m, n, r, add, ng, never come before other conſonants, or one another in the beginning of a word,* except μνάομαι.

3. *None of the cloſe Conſonants*

Labials { *p, b, m,*
Linguals { *t, d, n,*
Gutturals. { *ng,* Γ, *k,*

Or their aſpirats.

Labials { φ, *v,*
Linguals { θ, *th,*
Gutturals. { χ, *gh,*

If they be of the ſame Organ, can be compounded with one another. Except δν as δνόφος, δν, as δνήσκω. In theſe negatives the Latin, and I think other modern languages do agree with them.

For affirmative Rules the firſt ſhall be. *The liquids L, R, come frequently after the Mutes and Semimutes, with their aſpirats* as,

πλέω	γλαφω
πρὸ	χρῶς
τρέω	φλέβω
τλῆμα	
κλειω	φρυρέω
κραυγή	θλίβω
βλαπτω	θρίω
βρέμω	
δλ-	χλαμύς
δράω	χρέομαι.

The Rule is univerſally true *de jure*, tho not *de facto*; or, it is true *de generibus ſingulorum*,

gulorum, tho not *de singulis generum*. Hence tho there be no δλεπω, yet analogy would bear it as well as βλέπω or γλάφω. So in Latin, tho there be no words beginning with *tl*, yet *tlarus* would be as Analogical, as *clarus* or *planus*. So in English *tlash* were as Euphonick as *plash*, *clash*.

2. *S, in the beginning of a word comes before all kinds of Consonants in that same Syllable*; i. e. it is compounded with *Genera singulorum*, tho not with *Singula Generum*.

1. For the Mutes *p*, *t*, *k*, and their aspirats φ, θ, χ, it is compounded with them all; as, σπάω, σύπτω, σκέπω, σφεῖς, σθένος, σχῆμα. 2. The Semimutes β, δ, γ, it is only found with β, as σβέννυμι; and by the Dorick Dialect with δ, as κωμάσδω for κωμάζω. 3. Of the Sonorous or Nasales μ, γ, ν, it is found only with μ, as σμέρδω. *S.* is not to be found before any of these three consonants in Latin, unless it be in words taken from the Greek; and yet our English abounds with examples both of *sm*, and *sn*, as *small*, *smooth*, *smite*, *snatch*, *snow*.

Except from the former Rule, its two sister-semiclose linguals, *r*, *l*, before which

it never comes in Greek or Latin; Tho *sl* frequently in Englisſh, as *ſleep*, *ſlow*; and tho *s* it ſelf come not before *r* yet its aſpirate *sh* is found with *r* as *ſhrine*, *ſhrewd*.

3. *S* in the beginning of a word comes after ſome both of the Mutes and Semimutes, *de facto*, and therefore might come after them all *eodem jure*, ψ, z, ξ, i. e. *ps*, *ds*, *ks*. Here it comes after two Mutes, *k*, *p*, and one Semimute, *d*. The reaſon in Nature were the ſame for *bs*, *gs* *ts*, in the beginning of a Syllable; but *s* after *any* other Conſonant in the beginning of a Syllable ſounds harſh, and layes a force upon nature. What could induce the Grecians to ſingle out theſe three double Conſonants ψ, z, ξ, contracting them into one ſingle Character, and placing them in the Alphabet amongſt the ſimple Elements of letters, is not eaſy to gueſs. Had they made a more ſoft and melting ſound than other double conſonants, this might have paſt for a tolerable Reaſon: But the caſe is quite contrary; for they make a ſtronger poſition after a ſhort vowel than many other donble conſonants do: or if frequency of uſe had been the induce-

ment

ment this also had been tolerable; but even in this they must give place to many other double consonants: unless perhaps it may be thought, that the frequency of ψ and ξ in the future tenses of Verbs might have occasioned this abbreviation. *Vossius* guesses at the Origin of ψ, that it has been an imitation of the Hebrew ץ. If he had made ζ and ξ to be of the same origine, his conjecture had been by much the more probable; for there is fully as great reason for these as for that. The affinity of ξ to ץ is all one with ψ to ץ; for both of them are compounded of *S* following a Mute. Again the affinity of z to ץ is no less, for tho the one be mute, the other Semimute; yet they belong both to one organ of formation, which the Hebrews take notice of as the greater affinity: So that if an imitation of the Hebrew may pass for a probable reason of this Grammatication, it is much more likely, that a threefold abbreviation would induce them to this imitation, sooner than a single one; specially considering that *s* never follows another consonant in composition in the beginning

of a word, but in these three. I might add that the Hebrew Grammarians will scarce allow ʒ to be a double Consonant, tho I dare not undertake to defend them in this.

My next Rule shall be for trible Consonants in the beginning of a word. 1. *There can no word begin with three consonants but where* s *is one.* This is not only true in Greek and Latin, but I think also in our vulgar Europæan Languages. 2. *S, never makes a triple consonant in the beginning of a word, but with a mute and liquid following*; And this but rarely in Greek, as σπλὼ, σκληρὸς, σφαῖρα; so in Latin, as *scribo*, *spretus*, *stratus*; Tho the composition of *s* with any either single or double consonant in the beginning of a word, seems to be of no difficult pronounciation. And now I come to double and Triple consonants in the end of a Syllable.

I think our English Tongue with its Mother Saxon, abounds more with this kind of closure or ending of words, with double and triple Consonants, than any other common Language; which makes us censured by neighboring Nations, by comparing our pronounciation to the barking

barking of Dogs: For our words being for the moſt part Monoſyllables, and often ending with a harſh colliſion of double and trible conſonants, and admitting no Apoſtrophe; this makes us take the more time, and uſe the more force to utter them.

1. *The moſt natural and eaſy compoſition of Conſonants, either in the beginning or ending of a Syllable, is that of the Mutes and Semimutes, following the Sonorous letters of their own reſpective organs of formation*; as in theſe examples.

mb	*Lamb, dumb, comb,*
mp	*lamp, imp, lump,*
nd	*hand, blind, round,*
nt	*Ant, hint, hunt,*
ngg	*thing, long, dung,*
ngk	*think, rank, drunk.*

2. *The compoſition of two conſonants next for facility to the former, is when the three ſemicloſe linguals, l, r, s, come before other conſonants in the end of a ſyllable.* Examples in Engliſh are obvious: It is true, not of theſe three coming before *all* other letters; yet the reaſon is the ſame for all, tho uſe be not.

3. *Sin*

3. *S in the end of a word, according to the use of our English, makes a double consonant after any other letter, unless it be after q, x.* Other double consonants there are in the end of a word; but being very irregular and of a harsh sound I pass them by; such, as, *soft, length, right, apt,* &c.

4. *For trible consonants in the end of a syllable there is none found in any language but where S makes one.* I know the *Dutch* write Handt, but I suppose they must pronounce either *hand* or *hant*; for a mute and semimute of that same organ are inconsistent sounds. And as for our *strength,* and *length*; 1. Tho they be written with four consonants; yet we sound but two neither of which can be written in English, but with two Characters; But 2ly, I think the most genuin pronounciation of these two words is, as if they were written *strenth* and *lenth* according to the Northern Dialect.

5. *And lastly, allowing two ss in two distinct places* (which often happens) *there may be, and are* de facto, *in English four consonants after a Vowel in that same syllable,* as in *firsts, thirsts.*

This

This doctrine of double and trible consonants so far as concerns the ending of words, has but little place in the learned languages; yet examples are found both in Greek and Latin, even of Trible consonants; as λάρυγξ, *ſtirps*. Where obſerve that there are no words in Greek ending either in double or trible conſonants, but where *s* either virtually or expreſsly is the laſt; and but very few in Latin ending in other double Conſonants; Some in *nt* as *amant ſunt*, ſome few in *nc*, as *hinc hunc*, in *st*, as *eſt poſt*.

My laſt enquiry about double Conſonants ſhall be. How many may come together in one ſyllable? To which I anſwer. Firſt, If we follow reaſon & the Authority of the ancienteſt language, there can come no more than two, one before and another after the vowel. 2ly If we follow the uſage of the other two learned languages Greek and Latin; ſecluding the letter *s*, there can be no ſyllable of above four conſonants, two before, and two after the Vowel. 3ly Admitting *s*, which comes both before and after moſt letters, there may be a ſyllable of ſix conſonants, three before

before and three after the vowel. I grant there is no example found either in Latin or Greek of above five consonants; yet there are many examples in both of three consonants in the beginning, as στατός, *scribo*; so of three in the end, as σαρξ, *stirps*, whatever is above this, is harsh and Barbarous.

I have heard learned men of the Polish Nation affirm, that there is a Monosyllable of nine letters in that Language, the Orthography of which I took from the hand of a person of Honor of that Nation, thus *Chrzaszcz*, This word I have often heard pronounced by Natives, and have my self been commended by them for my imitation: But to strangers it seems a barbarous sound, and reaches not the expressing of the power of all the letters with which it is written. *Vossius* affirms as much of the *Dutch*. The word he instances in is, t'strengst. But I am sure if this be allowed for a Monosyllable, there may be a monosyllable of eleven letters, according to the Analogy both of the *Dutch* and *English*; or rather I may say, that there can be no bounds set to the Tongue in this particular. For first

if t'strength, why not st'strength; for it is clear even from the same instance, that *s* may come before *t* in that same syllable. If it be said that the letter *s* cannot be repeated thrice, in distinct places of that same syllable. First, I answer by retorting; much less can *t* be repeated thrice, as here *;* for laying this one word aside, I think it will be hard either to prove by reason, or to bring another instance out of any language whatever, where a word consisting of three *ttt* disjoyned from one anothet by the intervention of other letters is esteemed a monosyllable. 2ly The Analogy of the English allows of such a Monosyllable, as *Spasms*, *Schisms*.

Again if stitrengst why not ttstrengsts, and so *in infinitum*. That *s* after *t* is consistent in the end of a syllable, our English abounds with Examples, as *Tasts*, *fasts*. But here it is observable that this composition we admit of, *s* coming both before and after another Consonant in the end of a syllable, is very harsh and uneasy, and scarce to be found in any other language. The *French* make many shifts to avoid

the

the harſhneſs of *s* either before or after another conſonant, and chiefly in the end of a ſyllable: if *s* go before, they leave it out, as in *haſte*, *viſte*; if it come after they leave out the conſonant that goes before it; as in *loups*, *animaux*. Another thing obſervable of *s* with its affinis *l*; when they come alone without the implication of other conſonants: they are of an eaſy and graceful pronounciation. *Homer* ſeems to have loved them, as in theſe,

Αλλα συ σησιν εχε φρεσι ——
——Εγι φρεσι βαλλεο σησι

That the Preſs ſhould have ſtript theſe broken ends of Verſes of the unneceſſary and troubleſome luggage of Spirits and Accents, is neither the Compoſitor nor the Correctors fault: I am obliged to excuſe them and take the fault, if there be any, upon my ſelf; or rather lay it over upon the Author; who were he alive, he would excuſe both me and himſelf, by the Uſe of the times he lived in: And *uſe* we know is the ſupreme Law in all languages. But if all this do not ſatisfy the Critical Helleniſt; Then I muſt add further, that *Uſe* in the preſent caſe, will even dare to appeal

appeal to right Reaſon: For what ever may be ſaid for the cumberſome tackling of Spirits and Accents in Proſe; yet in a Verſe, Accents are down-right non-ſenſe, unleſs it be *tollendæ ambiguitatis cauſa* in æquivocal words.

That all other Appendages beſide the letters are unneceſſary and troubleſome, I ſhall inſtance only in one word, which is ſo overgrown with the Rickets, that the Head is much greater than the whole Body; for whereas the letters of the word are but three, the other appurtenances of it are five: And had it all that ſwelling furniture about it in the Gloſſology, which it hath in the Typology, it would choke one to pronounce it. But he muſt have more critical Ears than mine, that can perceive five diſtinctions in ἐγγὺς which are not to be heard in our Engliſh ERR. That this is not a word either made or ſought by me, appears by this paſſage of a common Epigram.

——ερρε ποθ' αλλων
ἐγγὺς ἐπει ἐφθασω παγιδα και γενεταν

And here I ſhall take the liberty to go one ſtep further out of my road; by taking notice

notice that the Grecians have lasht out a little too far, in that which is thought to be the greatest grace of their language: That is, *their words ending much in Vowels and Diphthongs; and these frequently making* pure *syllables, one, two, or more, without the intervention of a Consonant.* One, two, or at least three, one would think were enough for Euphony; but four, five, or sometimes six in the end of a word, I think is too much; specially, if they make so many syllables, ἀργύρεα τόξα sounds well; ἀργυρέα βιὸς, is yet more soft and melting; and ἀργυρέοιο βιοῖο sounds high and lofty from the mouth of a Poet, and Symbolizeth with the more Symbolical Hemistich preceding it.

Δεινὴ δὲ κλαγγὴ γένετ' ἀργυρέοιο βιοῖο.

But βιοῖο, and by a Dialysis βιοΐο, is too soft and lushious. And for ææ and βοῷο, I know not what other censure to pass on them, but that they are childish and ridiculous Traulisms. It is true that βοῷο in the Typology of the word, has its Syllables distinct enough; but the best can be said of it will leave them too identical in the Glossology. Again for ÆÆÆ, which

is the word of the greateſt number of vowels without a Conſonant, that I have happened to meet with; tho it be manifeſtly of a Greek origin, yet I know not where to father it upon any Greek Author, *totidem literis & ſyllabis*: which makes me ſtrange the more to ſee the grave and Manly *Roman*, who in his imitation of the effeminate *Greculus*, hath with a wonderful judgment, ſhall I ſay or happineſs, equally avoided the extremes of too much harſhneſs in the beginning of his words, and too much ſoftneſs and delicacy in the end of them; yet in this one word to have outdone him in number of vowels, tho not of ſyllables. *Ovid*, is my Author for this. *Metamorph. lib.* 4.

Nec tenet ÆÆÆ genetrix pulcherrima Circes.

But to return from this digreſſion to another obſervation upon the letters, L and S. Theſe two letters ſeem to me to make a great impreſſion upon the body of the French Tongue (as the particles and chiefly the pronouns do in all languages becauſe of their ſo frequent uſe in the *promptuarium vocabula* of that language. I have often been pleaſantly affected to hear two talk

ing *French*, when the pronominal words recurred often; such as, *ce, cett, c'est, cettui, cettuici, cettuila, lui, celui, icelui, elle, icelle, celleci, cellece*, &c. and many such like descending from the fruitful stock of *ca & la*: for these words comming from a French mouth, make a pretty soft whispering noise affecting the Ear pleasantly. Our own English pronominal words are none of the most graceful pronounciation, chiefly because of the so frequent use of *th* as *thou, thy, that, the, this, those, their*, &c. This makes Outlandish men call us *blæsi*; the sound of *th* never being heard amongst them, but by lispers; who pronounce *s* vitiously by the power of this letter. I will conclude with rectifying an Universal mistake of all that have written of Grammar, for want of considering the Nature of double consonants. It has past for currant amongst all Grammarians, that we are to divide words in all other Languages, following the use of double Consonants among the Grecians; as, *ma-gnus, do-ctus, le-ctus, a-ptus*, and not *mag-nus, doc-tus, lec-tus, ap-tus*, Vossius goes yet further (as I have had occasion to

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mention before) and bids us divide *le-gmen a-gmen*; tho their be no precedent for this in Greek. One Ancient Grammarian goes yet a ſtep further, and bids follow this Rule even in compounded words; as *o-bruo, o-bligo*, which notwithſtanding others do except. But *Priſcian* does well refute this Authors opinion by this argument, That Poets never uſed theſe ſyllables ſhort: So that for the very ſame reaſon, we muſt not divide *le-ctus, do-ctus*, becauſe they are uſed ſtill long by poſition.

Tho this reaſon be convincing enough; yet there is another reaſon worthy to be mentioned in this place, which alſo illuſtrates and confirms what I have ſaid before: that the primitive words of other languages (excepting the Hebrew) are for the moſt part Monoſyllables. In all primitive words I diſtinguiſh between radical and ſervile letters: the radical part of the word generally both in Greek and Latin is effable in one ſyllable, *amo, doceo*; *am* and *doc* are the radical letters, *o* in the one and *eo* in the other being ſerviles; and ſo changeable in the oblique inflexion

inflexion of the words, therefore I think it were reasonable in dividing the word to distinguish between what is radical, and what is servile.

Post-Script.

Tho I make no question, but I have said as much as may enable any person of ordinary capacity, with extraordinary diligence, to become if not a Didascalocophus, at least a Hypodidascalus to some more expert Master; yet my main design being not so much to make every Grammaticaster a Didascalocophus, as to satisfy learned men, that Cophology is none, either of the ἔργων ἀδυνάτων, or δυσγνώστων; This has made me the shorter in the practical part. So that any practitioner in this Art, not more Master of it than my self, must be beholding to me for some more particular directions. Wherefore if any Philocophus should challenge my self, to make good the Title of my book; let him bring a Subject duely qualified, male or female, the younger the better; and he shall find me ready to answer his challenge, either personally or by proxy.

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